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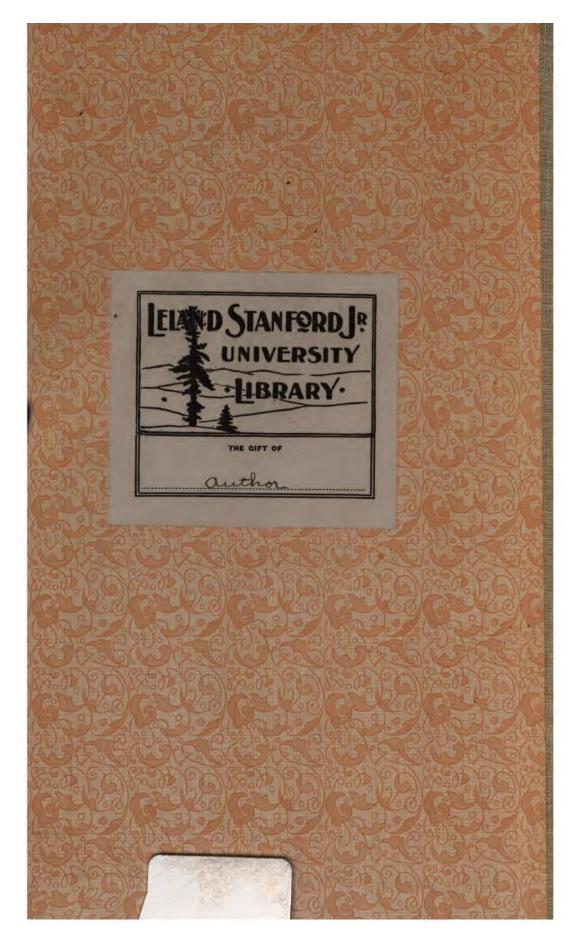
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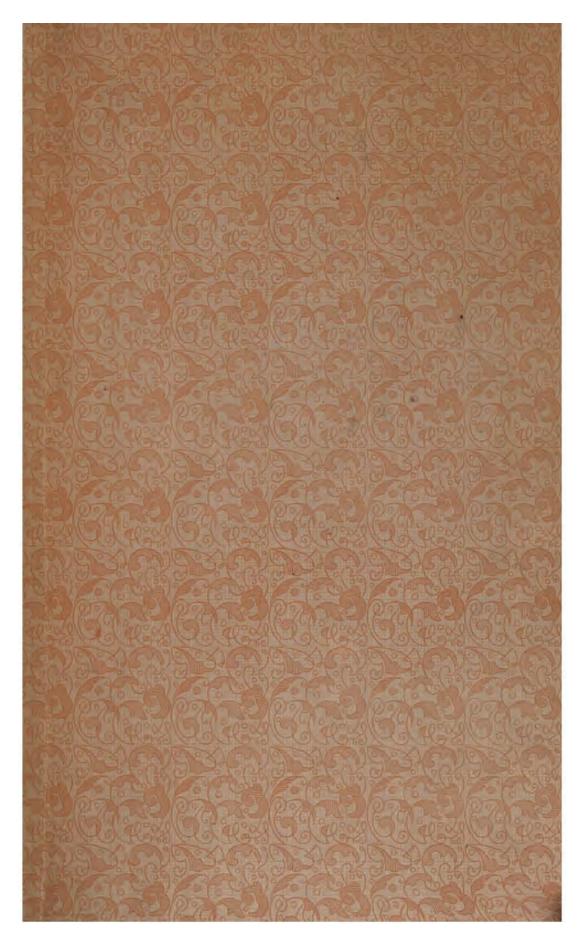
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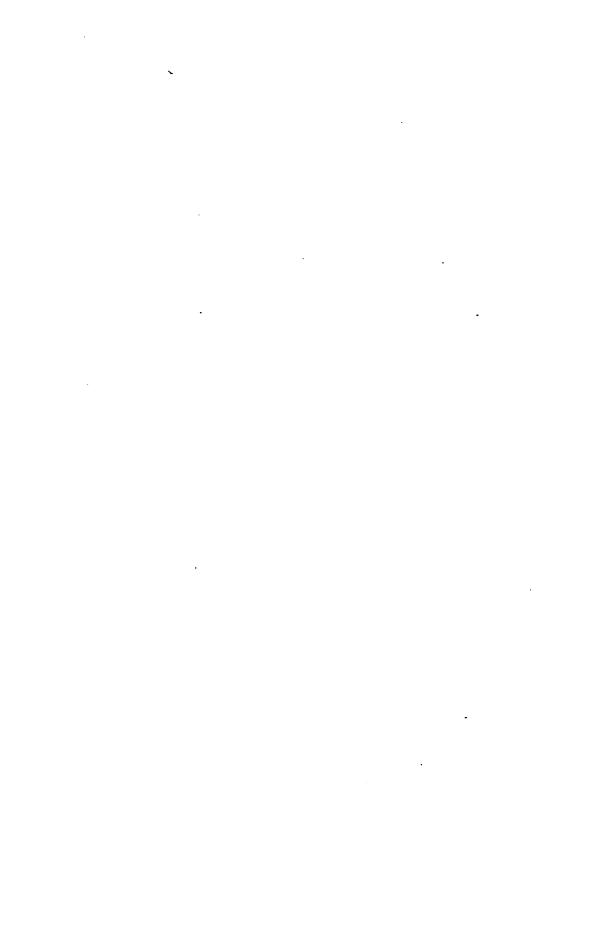
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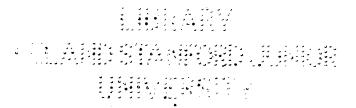
THE GENERA OF FISHES

FROM LINNÆUS TO CUVIER, 1758-1833, SEVENTY-FIVE YEARS, WITH THE ACCEPTED TYPE OF EACH.

A Contribution to the Stability of Scientific Nomenclature.

BY
DAVID STARR JORDAN

ASSISTED BY
BARTON WARREN EVERMANN



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INTRODUCTION

The leading purpose of the Commission * of the International Congress of Zoology is to give stability to nomenclature. To that end numerous cases of doubt have been resolved by the Commission. But the work done thus far has been largely piecemeal, and by this method it cannot be always made consistent with itself. Recently the Commission has undertaken to fix generic names on a larger scale, covering, for example, all those in use in a given group. In some small classes of animals this has been possible. In larger ones, it demands a study of the literature more detailed than any one has yet attempted.

Recently efforts have been made to secure stability by fiat, using names more or less current, without serious regard to the law of priority. To accept this plan would merely accentuate the confusion already existing and which has arisen through just such disregard of fundamental rules.

It seems to us that the attempts thus far have mostly begun at the wrong end. The need is not to confirm modern errors but to give nomenclature a solid basis for the long future. Stability must rest on a thorough study of the foundations of biological nomenclature, after which the Commission's authority can be used to confirm the results of such studies.

There is no middle ground between using the oldest eligible names in any given group and using whatever names we please. With the latter

Carl Apstein, Berlin; F. A. Bather, London; Joel A. Allen, New York: Raphael Blanchard, Paris, (President); F. S. Monticelli, Naples; Ph. Dautzenberg, Paris;

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Henry Skinner, Philadelphia;

Leonhard Stejneger, Washington; Charles Wardell Stiles, Washington, (Secretary).

^{*}The International Commission of Zoological Nomenclature consists (May 1917) of the following persons:

alternative, Systematic Zoology and Botany would come to a condition of hopeless despair. There can be no finality when the question of acceptance or rejection of names is left as a matter of personal preference.

Binomial nomenclature has its recognized beginning with the Tenth Edition of the Systema Natura of Linnaus, published in 1758 with the assumed date of January 1. These names of Linnæus constitute the original framework of Zoological Taxonomy. In the nomenclature of this early period, there are two main elements of doubt: the first relates to the eligibility of authors who have for one reason or another not accepted the Linnæan Code; next of authors whose works, published before the Linnæan Code, have been revised more or less and reprinted after the date of the Tenth Edition of the Systema Naturæ. In all of these the species are designated by a descriptive phrase, as was the custom before Linnæus began the practice of "scientific bookkeeping" in Systematic Zoology. The writings of Gronow, Schæfer, and Valmont de Bomare come under the first of these heads; those of Klein (Gesellschaft Schauplatz), Browne, Catesby, and Osbeck, under the other. Commerson and Plumier, whose manuscript names were published by an author who did not accept them, come under a third head. It is the judgment of the present writer, that the best interests of Ichthyology would have been served by adopting the rule followed by Jordan & Evermann (Fishes of North and Middle America, 1898). In this work all writers who use polynomial phrases for the designation of species are disregarded as factors in nomenclature, however regular their practice may be as to genera. It is not a question of justice to able naturalists who, like Gronow and Browne, failed to adopt the Linnæan Code, solely because they had never heard of it. It is the convenience of future naturalists which is now concerned. This would apparently be best served by the exclusion of all these.

The arguments against such exclusion are mainly two: Brisson in 1760, polynomial as to species, had a stronger grasp on the significance of genera than any other ornithologist of his time. He has been called "the Father of Ornithology." Most students of birds wish to retain Brisson's genera as foundation-stones in nomenclature. There are good reasons for accepting Brisson as an exception. Similar exceptions may be demanded in other groups. It is desirable, but not vitally necessary, that all accepted rules be general, without exception; but as a member of the International Commission of Nomenclature, the present senior author has made no objection to the recognition of Brisson. The other argument is this: these writers have published generic names which

appear in systematic lists, like that of Sherborne (Index Animalium). The Commission has already approved the names of Gronow and Commerson. If the present Commission should decide to reject the whole series of "irregulars," some future Commission may reverse the decision, placing the element of priority above that of regularity. This possibility we cannot forestall, while if once accepted there would be no successful movement for their rejection. Previous decisions of the Commission, as to Gronow and Commerson, point in the direction of general acceptance.

It is especially important to have the status of questioned authors determined as soon as may be, not only for the convenience of ichthyologists but for workers in other fields which may be affected by questions of preoccupation.

More important than the question of acceptance or rejection of some or all of the questioned genera, is the securing of a final decision. This the Commission will be asked to make as soon as practicable. Pending this decision it is perhaps wise for systematic workers to refrain from acceptance of the names questioned.

The other problem is the assignment of generic types to the genera of authors who had no conception of types. In doing this we have followed as closely as may be the rules adopted by the Congress of Zoology, having especial regard to the "first reviser." In some cases we have been in doubt on account of conflicting usages or even rules. But in such cases the weight of authority of the Commission when exercised should serve to turn the scale. With the authors subsequent to Cuvier, 1829, this matter rarely offers any embarrassment. The later authors mostly look upon a genus, not as a pigeon-hole with arbitrary boundaries, but rather as a group of species, with certain definite structural marks clustered around some definite species, the type of the genus.

The writer asks from his colleagues the fullest criticism both as to matters of fact and of opinion, before placing the contents of this paper formally before the International Commission. We would especially request information concerning omissions. There are no doubt numerous generic names overlooked in dictionaries and in obscure publications.

We have arranged in chronological order the generic names of fishes published in the first seventy-five years of the history of ichthyological taxonomy. The determination of the validity of genera is treated only incidentally. Our main problem is the fixation of the type.

STANFORD UNIVERSITY, CALIFORNIA, June 1, 1917.



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The Genera of Fishes from Linnæus to Cuvier 1758 to 1833

I. LINNÆUS, Systema Naturæ, Ed. X, Vol. I, 1758.

KARL LINNÉ (CAROLUS LINNÆUS).

The generic names of Linnæus represent, with one change and two or three additions, the system of Ichthyology as developed in 1738 by his friend and fellow-student, Peter Artedi, a naturalist whose knowledge of fishes was far greater than that of Linnæus. The types of most of the Linnæan genera have been accepted by common consent. As a rule we have not questioned the current application unless compelled to do so by the insistence of established rules.

Petromyzon Linnæus, 230, after Artedi; type Petromyzon marinus L. Unquestioned.

Raja Linnæus, 231, after Artedi; type Raja batis L. Spelled also Raia, by authors.

Squalus Linnæus, 231, after Artedi; type Squalus Acanthias L.

Restriction to S. ACANTHIAS and relatives, Rafinesque, Indice d'Ittiologia Siciliana, 1810, 45, and by Gill, Proc. Acad. Nat. Sci. Phila., 1862, 497. Gray, Cat. Chond., 1851, following Bonaparte, 1838, uses the name SQUALUS for the allies of CARCHARHINUS COMMERSONIANUS. But this use of the name is no more a specification of a type than is that of Rafinesque, and the more formal choice of type by Gill reinforces the former. Swainson, 1838, chooses CARCHARDON CARCHARIAS L.

Chimæra Linnæus, 236; type Chimæra Monstrosa L. Unquestioned.

Lophius Linnæus, 236, after Artedi; type Lophius piscatorius L. Unquestioned.

Acipenser Linnæus, 237, after Artedi; type Acipenser sturio L. Unquestioned.

Muræna Linnæus, 244, after Artedi; type Muræna Helena L. Unquestioned, except by Bleeker, who takes as type Muræna anguilla L., the first species named by Artedi.

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THE GENERA OF FISHES

- Gymnotus Linnæus, 246, after Artedi; type Gymnotus carapo L. Unquestioned, except by certain authors who take as type Gymnotus electricus L. which appears first in the Twelfth Edition of the Systema Naturæ.
- Trichiurus Linnæus, 246, after Lepturus Artedi; type Trichiurus Lepturus L.

Monotypic.

- Anarhichas Linnæus, 247, after Artedi; type Anarhichas Lupus L. Monotypic. Usually and more correctly spelled Anarrhichas.
- Ammodytes Linnæus, 247, after Artedi; type Ammodytes tobianus L. Monotypic.
- Stromateus Linnæus, 248, after Artedi; type STROMATEUS FIATOLA L. Unquestioned.
- Xiphias Linnæus, 248, after Artedi; type XIPHIAS GLADIUS L. Monotypic.
- Callionymus Linnæus, 249, after Artedi; type Callionymus Lyra L. Unquestioned.
- Uranoscopus Linnæus, 250, after Artedi; type Uranoscopus scaber L. Monotypic.
- Trachinus Linnæus, 250, after Artedi; type Trachinus draco L. Monotypic.
- Gadus Linnæus, 251, after Artedi; type Gadus Morhua L. By common consent.
- Blennius Linnæus, 256, after Artedi; type BLENNIUS OCELLARIS L. as restricted by Jordan & Gilbert, 1883.
- Ophidion Linnæus, 259, after Artedi; type Ophidion Barbatum L. Unquestioned.
- Cyclopterus Linnæus, 260, after Artedi; type Cyclopterus Lumpus L. Unquestioned.
- Echeneis Linnæus, 260, after Artedi; type Echeneis naucrates L. (misprinted neucrates).

First restriction by Gill, Proc. Acad. Nat. Sci. Phila., 1862, 239. In 1864, loc. cit. 60, Gill proposed to adopt as type Echeneis remora, this being the only species noted by Artedi, and in Linnæus's earlier writings. But as Linnæus referred both species to Echeneis, this change seems not warranted.

- Coryphæna Linnæus, 261, after Artedi; type Coryphæna Hippurus L. Unquestioned.
- Gobius Linnæus, 263, after Artedi; type Gobius NIGER L. By common consent.
- Cottus Linnæus, 264, after Artedi; type Cottus Gobio L. First restriction by Cuvier & Valenciennes, Hist. Nat. Poiss., IV, 1829, 142. "Ce genre avait pour type primitive, un petit acanthopterygien de nos rivières, à

tête large," etc. Later restricted to Cottus scorpius L. (Myoxocephalus Steller = Acanthocottus Girard), by Putnam, Bull. Mus. Comp. Zool., I, No. I, 3, 1863.

Scorpæna Linnæus, 266, after Artedi; type Scorpæna Porcus L. Unquestioned.

Zeus Linnæus, 267, after Artedi; type Zeus faber L. Unquestioned.

Pleuronectes Linnæus, 268, after Artedi; type Pleuronectes platessa I.

First restriction by Fleming, *Philos. Zool.*, 1822. Some writers have taken PLEURONECTES MAXIMUS L. as type, following a quasi-designation by Fleming in 1828.

Chætodon Linnæus, 272, after Artedi; type Chætodon capistratus L. First restriction by Cuvier, Règne Animal, 1817, 33, and by Jordan & Gilbert, Synopsis Fish N. A., 1883. All authors, except Bleeker, have used the name for the same group. Artedi places first in his list under Chætodon the species called Chætodon arcuatus, a Pomacanthus. Bleeker takes this species as type, replacing Pomacanthus with Chætodon, and Chætodon by Tetragonoptrus.

Sparus Linnæus, 277, after Artedi; type Sparus aurata L.

First restriction by Fleming, Philos. Zool., 1822. This decision has been generally, but not universally accepted.

Labrus Linnæus, 282, after Artedi; type Labrus Bimaculatus L., the earliest type designated by Bonaparte (1839), under the name of L. Vetulus Bloch.

By common consent restricted to LABRUS VIRIDIS and closely allied forms.

Sciæna Linnæus, 288; type Sciæna umbra L.

Complex species, to be considered as identical with Cheilodipterus aquila Lacepède. First exact restriction by Cuvier, 1815. Sciæna umbra, based on Artedi, is a mixture of two species, Sciæna aquila (Lac). and Corvina nigra (Bloch). It is the proper type of the genus Sciæna, but its component parts are not congeneric. The two species were confused until Cuvier (Mém. du Museum, 1815, and later in the Règne Animal, Edition II, 1829, made clear the difference and definitely chose aquila as the type of Sciæna. Jordan & Evermann have adopted Corvina nigra, under the name of Sciæna umbra, as type of Sciæna. An argument can be made for either arrangement, but convenience is best served and probably justice also by accepting the name umbra for the species called aquila and recognizing this as type of Sciæna. The two species concerned should then stand as Sciæna umbra L. and Corvina nigra (Bloch). Bleeker has chosen as type Sciæna cirrosa, the species placed first by Artedi, the type of Umbrina Cuvier.

Perca Linnæus, 289, after Artedi; type Perca Fluviatilis L. By common consent.

Gasterosteus Linnæus, 295, after Artedi; type Gasterosteus aculeatus L.

By common consent.

Scomber Linnæus, 297, after Artedi; type Scomber scombrus L. By common consent.

Mullus Linnæus, 299; type Mullus barbatus L. By common consent.

Trigla Linnæus, 300, after Artedi; type Trigla Lyra L.

By common consent.

Cobitis Linnæus, 300, after Artedi; type Cobitis Tænia L. By common consent.

Silurus Linnæus, 304, after Artedi; type SILURUS GLANIS L. By common consent.

Loricaria Linnæus, 307, type Loricaria Cataphracta L. Monotypic.

Salmo Linnæus, 308, after Artedi; type Salmo salar L. By common consent.

Trutta Linnæus, as "Truttæ," 308; type Salmo trutta L. Type by tautonomy.

Osmerus Linnæus, as "Osmeri," 310, after Artedi; type Salmo eper-Lanus L.

By common consent,

Coregonus Linnæus, as "Coregoni," 310, after Artedi; type Salmo LAVARETUS L.

By common consent.

Characinus Linnæus, as "Characini," 311, after Gronow; type Salmo Gibbosus L.

First restriction by Gill, Proc. U. S. Nat. Mus., 1895, 215. Replaces Charax Gronow, Epicyrtus Müller & Troschel, Anacyrtus Günther. Its use hinges on its eligibility, as Linnæus used only the plural form Characini as a section Salmo. If not accepted, Charax Gronow (1763), Scopoli (1777), would replace it, with the same type. The same slight doubt applies to Trutta, Osmerus and Coregonus, all used in the plural form only by Linnæus. In our judgment all are eligible.

Fistularia Linnæus, 312; type FISTULARIA TABACARIA L. Monotypic.

Esox Linnæus, 313; type Esox Lucius L.

This type was indicated, somewhat arbitrarily, in Opinion 58 of the International Commission, accepting the view of Cuvier, and current usage both before and after Linnæus. Klein chose the name Lucius for the Pike, this name being adopted in the Gesellschaft Schauplats. Rafinesque first separated the marine garfishes from the pike, calling the former Esox, the latter Lucius. But neither ever stated formally that Esox belone L. was the type of Esox. In view of the arguments available on either side, we may "let sleeping dogs lie," and follow common custom, strengthened by the authority of the Commission.

- Argentina Linnæus, 315, after Gronow, (Museum Ichthyologicium, a pre-Linnæan work); type Argentina sphyræna L. Monotypic.
- Atherina Linnæus, 315, after Artedi; type Atherina Hepsetus L.
- Mugil Linnæus, 316, after Artedi; type Mugil CEPHALUS L. Monotypic.
- Exocœtus Linnæus, 316; type Exocœtus volitans L. = E. evolans L. (= Halocypselus Weinland). Monotypic.
- Polynemus Linnæus, 317, after Gronow and Artedi; type Polynemus PARADISEUS L.

The first real restriction seems to be that of Günther, Cat. Fishes, II, 1860, 319. No type is specified, but the non-congeneric species, P. QUINQUARIUS L., is removed to form the genus Pentanemus, a name originally employed by Artedi, but changed to Polynemus by Gronow. As this species, Quinquarius, was the only one known to Artedi or to Gronow, Dr. Gill, with numerous writers, ourselves included, has regarded it as the type of Polynemus. But common usage with the formal selection of P. PARADISEUS L. as type by Jordan & Gilbert, Synopsis Fishes, 1883, should prevail.

- Clupea Linnæus, 317, after Artedi; type Clupea Harengus L. Unquestioned.
- Cyprinus Linnæus, 320, after Artedi; type CYPRINUS CARPIO L. Unquestioned.
- Mormyrus Linnæus, 327; type Mormyrus cyprinoides L. Unquestioned.
- Balistes Linnæus, 327, after Artedi; type Balistes vetula L. Unquestioned.
- Ostracion Linnæus, 330; type Ostracion cubicus L.

As restricted by Swainson 1839, by Bleeker 1865, and in recent usage. Unquestioned, except by Kaup, who takes as type O. TRIQUETER L., a species

referred to Lactophrys Swainson. O. cubicus L. is type of Cibotion Kaup.

Tetraodon Linnæus, 332, after Artedi; type Tetraodon testudineus L. This genus has been variously treated by authors, but justice and convenience are best served by the choice of T. TESTUDINEUS as type. Bleeker, Atlas Ichth., 1865, appears to be the first reviser. He observes: "C'est une de ces espèces qui est devenue le type du genre Linnéen . . . en effet le Tetraodon testudineus, qui est la première des espèces de Tetraodon de la Dixième Edition du Systema Natura." Several writers have since indicated as type T. LINEATUS L. a species of Ovoides.

Diodon Linnæus, 334, after Artedi; type Diodon Hystrix L. Unquestioned, except by Bleeker, who takes the first species named, Diopon ATINGA L.

Centriscus Linnæus, 336, after Gronow; type Centriscus scutatus L. Monotypic, a fact overlooked by various authors who choose Centriscus scolopax L., 1766.

Syngnathus Linnæus, 336, after Artedi; type Syngnathus acus L. By common usage. The earliest restriction as approved by the International Commission is that of Jordan, Opinion, 45, 103, 1912.

Pegasus Linnæus, 358, after Gronow; type Pegasus volitans L. Monotypic.

II. GUNNER, Nachricht von Berglachs, welche Coryphænoides Rupestris genannt werden kann: Throndhjemske Selskab, Schriften III, 1761.

JOHAN ERNST GUNNER.

Coryphænoides Gunner, 43, 50; type Coryphænoides rupestris Gunner.

III. SCHÆFER, Piscium Bavarico Ratisbonensium, 1761.

JACOB CHRISTIAN SCHÆFER.

The descriptions in this paper are exact and very elaborate ("in universum describiendibus"). The nomenclature is eccentric—in part mononomial, and the names are perhaps not exactly used in the sense of genera. The perch is called Perca vulgaris and again Perca fluviatilis.

Names perhaps not eligible as mononomial:

Cernua Schæfer, 37; type Cernua seu perca fluviatilis minor Schæfer — Perca cernua L.

Equivalent, if accepted, to Gymnocephalus Bloch, Acerina Güldenstadt, Cernua Fleming.

Schraitzer Schæfer, 38; type Schraitzer Ratisbonensium = Perca schrætzer L.

Equivalent to LEPTOPERCA Gill.

Asperulus Schæfer 59; type Zindel ratisbonensis Schæfer = Perca zingel L.

Equivalent to ZINGEL Oken.

Asper Schæfer 59; type Asper verus Schæfer, "Streber ratisbonensis" = Perca asper L.

Equivalent to ASPRO Cuvier, not of Commerson.

IV. OSBECK, Reise durch China, 1762.

PER OSBECK.

Osbeck, a pupil of Linnæus, published in 1757 the record of his travels in China. This work is wholly binomial, but being earlier than 1758, the Latin edition, "Iter Chinensis," 1757, cannot be used in nomenclature. The German edition, Reise durch China, bears the date of 1762, and is here considered. A Swedish version dates from 1765, an English edition from 1771. The case is exactly parallel with that of Hasselquist's "Iter Palestinum," published in 1757, and reprinted in German in 1762. Hasselquist, like Osbeck, was a pupil of Linnæus, and adopted the Linnæan Code. In Opinion 57, the Commission of Nomenclature rejected Hasselquist's work and its translation. "The German translation by Gadebusch, published in 1762, does not give validity to the names published in the original edition in 1757." The present writers question the wisdom of this decision.

The names of Osbeck are questioned as translations of work prior to 1758.

Apocryptes Osbeck, 130, 1762; type Apocryptes Chinensis Osbeck, Gobius pectinirostris Gmelin.

APOCRYPTES is close to Boleophthalmus but distinct. Apocryptes Cuvier is a different genus.

Albula Osbeck, 309, 1762; type Albula Chinensis Osbeck.

Same as SALANX Cuvier, not Albula Gronow 1763. If accepted, the genus commonly called Albula must receive a new name, BUTYRINUS Lacepède.

V. GRONOW, Zoophylaceum; Zoophylacii Gronoviana . . . Animalia quæ in museo suo adservat, etc., 1763.

LORENZ THEODOR GRONOW (LAURENTIUS THEODORUS GRONOVIUS).

In this work of Gronow, printed in 1763, before its author had become acquainted with the Systema Naturæ, the genera of fishes are well defined, in a system which runs closely parallel with the system of Artedi (1738), but the species, as with Artedi, have polynomial designations only. In addition to the genera earlier named by Artedi and Linnæus, Gronow has a number of new names. Two of these, AMIA and HEPATUS, conflict with Linnæan genera of 1766. The completed manu-

script work of Gronow, written in 1780, called Systema Ichthyologicum, in which binomial names were attached to species, after the Linnæan fashion, became the property of the British Museum, by which institution it was published in 1854. This work, as edited by John Edward Gray, does great credit to the scientific discrimination of Gronow; but at that late date, exactly a hundred years after Gronow's first paper, "Museum Ichthyologicum," nearly all of his new names became synonyms.

Fortunately for the interests of nomenclature, most of Gronow's names were adopted in 1777 by Scopoli, Introd. Hist. Nat. other names have been used by subsequent authors, as Gmelin, Bloch and Cuvier; so that the adoption of the names of Gronow works less confusion in the system than might be expected. The suppression of AMIA, LIPARIS, ZOARCES, CONGER, and SCARUS, with the transposition of AMIA, are the results most to be regretted. As the few new names of Gronow have lain unnoticed for a century and a half, it seems a pity to revive them. The present writer believes, as already stated, that it would be a wise rule to exclude from the system all post-Linnæan writers who failed to adopt the binary designation of species. As however Brisson, 1760, "the Father of Ornithology," was a writer of this type, it may be possible to make an exception in his case, preserving his genera of Birds. But Ichthyology gains little to atone for the confusion resulting from the introduction at this late day of the names of Gronow, Klein and other polynomial writers not hitherto absorbed into the sys-The generic names of Gronow have been, however, formally accepted by the International Commission of Zoological Nomenclature (Opinion 20, Smithsonian Miscellaneous Contributions, No. 1938): "Gronow, 1763, is binary, though not consistently binomial. Article 25 demands that an author be binary and Article 2 demands that generic names shall be uninomial. Under these articles, Gronow's names are to be accepted as complying with the conditions prescribed by the Code to render a name available under the Code."

The eligibility of the generic names of Gronow is questioned as not conforming to the Linnaan code in the terminology of species.

Callorhynchus Gronow, 31; type Chimæra callorhynchus L. (Callorhynchus pinna dorsi etc. Gronow).

Unquestioned: accepted by later writers.

Cyclogaster Gronow, 55; type Cyclopterus liparis L. (Cyclogaster belgis kringburgk (Gronow).

The name LIPARIS used for this genus by Artedi in 1738 was changed to Cy-

CLOGASTER by Gronow. LIPARIS was restored by Scopoli in 1777, and has been used by nearly all subsequent authors.

Gonorhynchus Gronow, 56; type Cyprinus gonorhynchus Gmelin.

Monotypic. The name was adopted by Schlegel, 1846, replacing RHYNCHÆUS Richardson. Also by Scopoli, 1777.

Uranoscopus Gronow, 57; type Cottus gobio L.

Synonym of Cottus L.

Cynædus Gronow, 60; type Sparus aurata L. (Cynædus cauda lunulata etc. Gronow).

This genus is an assemblage of Sparoid fishes, essentially equivalent to Sparus of Linnæus, and includes species of several modern genera. Jordan (Smithson. Publ. No. 1938: Opinions on zoological nomenclature) has proposed to treat CYNÆDUS as a synonym of Sparus, having Sparus aurata as type.

Holocentrus Gronow, 65; type Holocentrus sogo Bloch (Holocentrus maxilla superiore longiore Gronow).

This name, taken from Artedi, was revived by Scopoli, 1777, and by Bloch, 1790, who changed the spelling to Holocentrum, the form used by Artedi. This neuter form has been used by most authors from Cuvier to Günther.

Coracinus Gronow, 66; type Dipterodon capensis Cuv. & Val. (Coracinus cauda-lunata Gronow).

Not DIPTERODON Lacepède. If accepted, replaces DICHISTIUS Gill.

Scarus Gronow, 67; type Labrus viridis L. (Scarus viridis Gronow).

This genus of Gronow unfortunately contains no species of the group later called Scarus, the two other species enumerated being Cichlibs from Surinam.

Callyodon Gronow, 72; type Scarus croicensis Bloch (Calliodon capite subacuto Gronow).

CALLYODON, if eligible, must replace SCARUS Forskål, 1775, as the name of this large and wide-spread genus. The name SCARUS of Gronow, applied to a species of LABRUS, antedates its use for a parrot-fish. The genus called CALLIODON by Cuvier (C. SPINIDENS), is distinct from CALLYODON of Gronow (CALLIODON of Bloch & Schneider), and must stand as CRYPTOTOMUS Cope. Revived by Scopoli, 1777.

Enchelyopus Gronow, 77, after Klein; type Blennius viviparus L. (Enchelyopus corpore lituris etc. Gronow).

This genus as proposed by Klein in 1744 contained a variety of fishes, eelshaped but with ventral fins. As used by Gronow it is practically equivalent to Zoarces Cuvier, and to this type it was restricted by Gill, 1863. Enchelyopus Bloch & Schneider (type Gadus cimerius L., a species unknown to Gronow), should stand as Rhinonemus Gill. Enchelyopus Gronow must unfortunately supersede Zoarces Cuvier.

Pholis Gronow, 78; type Blennius gunnellus L. (Pholis maculis annulatus etc. Gronow).

Revived by Scopoli, 1777. Replaces Murænomes Lacepède and Gunnellus Cuvier, (not Pholis Cuv. & Val.). Monotypic.

Amia Gronow, 80; type Apogon moluccensis Cuv. & Val. (Amia caput catheoplateum Gronow).

Equivalent to Apogon Lacepède, 1802.

Eleotris Gronow, 83; type Gobius pisonis Gmelin — Eleotris gyrinus Cuvier & Valenciennes (Eleotris capite plageoplateo etc. Gronow).

The name ELECTRIS was used for the same group by Bloch & Schneider in 1801, and by all later authors.

Clarias Gronow, 100; type CLARIAS ORONTIS Günther (CLARIAS Gronow).

Accepted by Scopoli, 1777, and by other writers. Monotypic.

Albula Gronow, 102; type Esox vulpes L. = Albula conorhynchus Bloch & Schneider.

Revived by Bloch & Schneider, 1801. Antedated by Albula Osbeck. Equivalent to Butyrinus Lacepède. Also used by Scopoli, 1777.

Aspredo Gronow, 102, after Linnæus, 1754; type Silurus aspredo L. (Aspredo cirris octo Gronow).

Anableps Gronow; type Cobitis anableps L.

Anostomus Gronow, 112; type Salmo anostomus L. (Anostomus Gronow).

Adopted by Müller & Troschel, 1845. Equivalent to Schizodon Agassiz, 1829. Monotypic. Revived by Scopoli, 1777.

Synodus Gronow, 112; type SALMO SYNODUS L.

This genus, equivalent to SAURUS Cuvier, was revived by Scopoli, 1777. Monotypic.

Hepatus Gronow, 113; type Teuthis Hepatus L. = Chætodon chirurgus Bloch, not Acanthurus Hepatus Cuv. & Val. (Hepatus Mucrone reflexo Gronow).

HEPATUS Gronow is based on two species, on which two Linnæus based his genus Teuthis. The latter is a substitute for the former, and the two were accepted as identical by Scopoli. Of the two species mentioned by Gronow, HEPATUS L. and JAVUS L., Gronow had, according to Dr. Günther, a specimen of the first. This we may take as type of both HEPATUS and TEUTHIS HEPATUS. This example belonged to the species called later CHÆTODON CHIRURGUS by Bloch. This species must be regarded as the type of the genus HEPATUS. Cuvier & Valenciennes have used the name HEPATUS L. for an East Indian species, Colocopus LAMBDURUS Gill. They were mistaken in supposing that this species was the one examined by Gronow. The restriction here made is that of the first reviser, Jordan, Tanaka & Snyder, Cat. Fish Japan, 1913, 214. If accepted, HEPATUS replaces TEUTHIS and ACANTHURUS.

Umbra (Krämer) Gronow, 114; type Cyprinodon krämeri Walbaum. (Umbra krameri Gronow).

Revived by Scopoli, 1777, and Müller, 1842, as UMBRA CRAMERI Müller.

Erythrinus Gronow, 114; type Salmo erythrinus Bloch & Schneider, 1801 (= Erythrinus Gronow).

The name was revived by Müller & Troschel, 1846, and is in general use. Monotypic. Used also by Scopoli, 1777.

Cataphractus Gronow, 115; type Pegasus draconis L. (Cataphractus corpore tetragone Gronow).

This genus is a synonym of PEGASUS L.

Solenostomus Gronow, 119; type Fistularia tabacaria L. (Solenostomus cauda bifurca etc. Gronow).

Solenostomus is equivalent to Fistularia. The genus Solenostomus Lacepède, 1803, typified by Fistularia paradoxa Pallas, must receive a new name, if the names of Gronow are accepted.

Charax Gronow, 123; type Salmo gibbosus L. (Charax maxilla inferiore etc. Gronow).

This name is equivalent to Characini L.—Epicyrtus Müller & Troschel, 1846, said to be preoccupied, and Anacyrtus Günther, 1864, presented as a substitute for Epicyrtus, all with the same type. Charax Risso (C. Puntazzo) belongs to the very different family Sparidæ. Revived by Scopoli, 1777.

Mystus Gronow, 124; type Bagrus halepensis Cuv. & Val. (Mystus cirris octo capite longioribus Gronow).

The genus Mystus as defined by Gronow contains five species, not congeneric. The name is taken from Russell's *History of Aleppo*, who describes the species called Bagrus or Hypselobagrus halepensis as Mystus. Of the generic names included, that of Hypselobagrus Günther, 1864, is the most recent. The species named "Mystus" by Russell may be taken as the type of "Mystus" which will, if accepted, supersede Hypselobagrus. Mystus Lacepède, 1805, (Mystus Clupeoides Lacepède) is a species of Collia Gray, 1831, an Engraulid fish. Also Scopoli.

Plecostomus Gronow, 127, after Artedi; type Loricaria plecostomus L. (Plecostomus dorso dipterygio Gronow).

If accepted, replaces Hypostomus Lacepède; it is now in general use.

Callichthys Gronow, 127; type SILURUS CALLICHTHYS L. (CALLICHTHYS CIRRIS Gronow).

Unquestioned, being accepted by later writers.

Mastacembelus Gronow, 132; type Ophidium simack Walbaum, 1792 = Rhynchobdella haleppensis Bloch & Schneider, 1801 (Mastacembelus maxillis subacutis Gronow).

Revived by Cuvier & Valenciennes. The generic name RHYNCHOBDELLA Bloch & Schneider included both species assigned by Gronow to MASTACEMBELUS. In dividing the group, Cuvier & Valenciennes assigned the former name to Ophidium aculeatum Bloch, Gronow's second species, leaving Mastacembelus for his first. Before Gronow, Klein, 1744, had used the name Mastacembelus for an entirely different group. In this he had been followed by Bleeker, who recognized, at first, generic names of earlier date than 1758.

Channa Gronow, 135; type Channa orientalis Bloch & Schneider, 1801 (Channa Gronow).

This monotypic genus was accepted by Bloch & Schneider, 1801, and Scopoli.

Gasteropelecus Gronow, 135; type Clupea sternicla L. (Gasteropelecus Gronow).

Monotypic. The name was revived by Pallas in 1769.

Leptocephalus Gronow, 135; type Leptocephalus Morrisi Gmelin, the larva of Muræna conger L. (Leptocephalus Gronow).

This name, based on a larval conger, and revived by Scopoli in 1777, is held to replace Conger Houttuyn, 1764, and of Cuvier, 1817, given to the adult of the same species. As Leptocephalus has been in use more than a century as the collective name of the peculiar translucent expanded larvæ of the Conger and other eels, it would be well to restrict its use to those forms, reserving the genus to which the type belongs, the earliest name given to the adult fish, Conger Houttuyn.

Gymnogaster Gronow, 136; type Trichiurus Lepturus L. (Gymno-GASTER Gronow).

Equivalent to TRICHIURUS L. Monotypic.

Pteraclis Gronow, 136; type Coryphæna velifera Pallas, 1770 (Pteraclis Pinnata Gronow) 1777.

The name PTERACLIS was used by Gronow, 1772. It is monotypic and unquestioned.

VI. LINNÆUS, Museum Adolphi-Frederici, II, 1764.

CAROLUS LINNÆUS.

Cepola Linnæus, 63; type Cepola Rubescens L. = C. Tænia L. (also in Syst. Nat., 1766.)

Q 3/2

VII. HOUTTUYN, Natuurlike Historie volgens den Heer Linnæus, 1764.

MARTIN HOUTTUYN.

This work we have not seen. Mr. Garman (in lit.) quotes:

Conger Houttuyn, VII, 103; type Muræna conger L.

This name might well be retained for the Conger eel, leaving LEPTOCEPHALUS to its time-honored special use as a designation for the larval forms of Conger and similar eels.

Torpedo Houttuyn, VII, 453; type (not named) RAJA TORPEDO L. Apparently this fixes the name Torpedo on the Electric Ray.

VIII. LINNÆUS, Systema Naturæ, Ed. XII, 1766.

CAROLUS LINNÆUS.

This edition contains four genera in addition to those given in the Tenth Edition.

Cepola Linnæus, 445; type C. TÆNIA L. = C. RUBESCENS L. Unquestioned.

Amia Linnæus, 500; type A. CALVA L.

The generic name AMIA appears in the Twelfth Edition of the Systema Naturæ, in 1766. It had been used earlier by Gronow, in 1763, for a percoid genus, later called Apogon by Lacepède.

In the opinions already rendered by the Commission, it was decided that the generic names in Gronow's Zoophylaceum, published in 1763, between the tenth and twelfth editions of the Systema Naturæ, should be adopted, although his names for species were polynomial. Gronow was an excellent ichthyologist, with broader knowledge than Linnæus, and later adopted the Linnæan nomenclature. In view of the fact that his names are not in current usage, and that he had not then accepted binomial nomenclature, most recent authors have rejected them, unless revived by some binomial writer. The transfer of Amia from the ganoid to a percoid genus is, however, peculiarly undesirable, and it may be urged that general convenience justifies a special exception in this case. If Amia be used for Apogon, Amia L. is replaced by Amiatus Rafinesque, 1815.

Teuthis, 507, after Browne; type Chætodon cæruleus Bloch = Teuthis hepatus L. in part.

The name Teuthis was applied by Linnæus in the twelfth edition of the Systema Naturæ, to the two species which formed the genus Hepatus of Gronow, in 1765. These were named Teuthis hepatus and Teuthis javus. The name Teuthis was borrowed from Browne, a non-binomial author. The two Linnæan species belong to different families. The species first named hepatus may be regarded as the type of Hepatus, as already indicated. The name Teuthis should properly go with T. hepatus, as the name is borrowed from Browne, who applied it to a single species, confused with Teuthis hepatus by Gronow and Linnæus, the Chætodon cæruleus of Bloch. This species is a near relative of the type of Hepatus. This decision follows the arguments of Dr. Gill. It is reasonable, but not above question. Meanwhile several authors, notably Cantor and Günther, use Teuthis for T. Javus (Siganus Forskål), while others suppress it altogether. Still others misspell it, as Theutys, Theutis, etc.

Elops Linnæus, 508; type Elops saurus L. Monotypic.

IX. MÜLLER, Delineationes Naturæ, II, 1767, 141 (fide Sherborne, Index Animalium).

PHILIP LUDWIG STATIUS MÜLLER.

Not seen by us.

Acus Müller, 141; type probably Syngnathus acus L. Equivalent to Syngnathus L.

Orbis Müller, 141; type probably Diodon Hystrix L.

Equivalent to DIODON L.

We copy these references from Sherborne. In a memoir by Professor Müller, 1774, vol. III, p. 341, Acus appears as a specific name under Syngnathus acus, and again, 1774, IV, 341, as a vernacular under Esox belone. Under Diodon Hystrix (III, 327) he quotes "Orbis maximus spinosus." Mr. Garman, who gives us these references, remarks: "I would say that neither of these is available as a generic name." Neither is used in Müller's supplement to the Systema Natura, 1776.

X. GEOFFROY, Descriptions de 719 Plantes etc., 1767.

ÉTIENNE LOUIS GEOFFROY.

This paper we have not seen. We copy from Sherborne.

Ichthyocolla Geoffroy, 399; type presumably Acipenser Huso L.

The name, meaning fish-glue, was early applied to the fish producing it. Prior to Huso Brandt, as a name for a subgenus of sturgeons.

Harengus Geoffroy, 405; type presumably Clupea Harengus L., in which case it is a synonym of Clupea.

Lucius Geoffroy, 407; type presumably Esox Lucius L.

Trutta Geoffroy, 719; type presumably SALMO TRUTTA L.

XI. VALMONT DE BOMARE, Dictionnaire Raisonné Universel d'Histoire Naturelle, 1764, 1768, 1774, 1791.

JEAN CHRISTOPHE VALMONT DE BOMARE.

The eligibility of Valmont's names is questioned as binomial only by accident, and not accepted as genera by the author himself in 1791.

Of this work we have examined four editions, the first bearing date of 1764; the "new edition," considerably enlarged, of 1768; the second

edition, apparently mostly identical with the "new edition," 1775; and the fourth, still larger, in 1791.

The dictionary received no consideration in ichthyological nomenclature until the appearance of the elaborate treatise on the sharks of the world, "Plagiostomia" by Samuel Garman, (Memoirs of the Museum of Comparative Zoology at Harvard College, vol. XXXVI, 1913).

In this work Mr. Garman makes brief reference to Valmont de Bomare as a worthy author hitherto ignored in taxonomy. "The selection of one authority because he favored binomials more than another, has led to much uncertainty among names and to many changes. It has led authors to belittle and to ignore excellent works which at their time of publication and much later ranked in accuracy and influence among the first of the scientific publications of this period." Mr. Stejneger informs me that a Danish edition of this Dictionary exists.

An examination of four editions of the *Dictionnaire* of Valmont de Bomare shows it to be a compilation pure and simple, that he did not intend to give any new scientific names to animals or plants, but that, in a few cases, he copied binomial appellations from earlier authors which might be construed as revived in a scientific sense.

It is therefore worth while to examine these cases in detail.

First Edition, 1764.

In the first edition, bearing date of 1764, there is no case of the use of anything resembling scientific nomenclature, although Valmont often gives a Latin equivalent to his French names. It is evident, however, that the work of Artedi, Klein, Gronow, and Linnæus in which genera and species are formally recognized, is unknown to him.

Thus, accompanied by fair descriptions compiled from other authors, he gives the following:

"Aiol, en Latin, Scarus, un des plus beaux," etc. (vol. I, p. 95).

"Alose, Alosa, poisson de mer qui remonte" (vol. I, p. 105).

"Anchois, en Latin, Apua, petit poisson," etc. (I, 13, 3).

"Anguille, Anguilla, poisson allongé," etc. (vol. I, p. 133).

"Congre, Conger, excellent poisson," etc. (vol. II, p. 58).

"Daurade, Aurata vulgaris, Espèce de poisson," etc. (vol. II, p. 225).

"Épinoche, Piscis aculeatus (vol. II, p. 306).

"GLAUCUS, bien des ichthyologues donnent ce nom à trois sortes de poissons, 1 au Derbio, 2 au Liche, 3 au véritable GLAUCUS," etc. (vol. II, p. 512).

"HARENG, HALEC, Les harengs sont des poissons de passage," etc. (vol. II, p. 610).

"Torpille, Torpedo ou Tremble, Torpedo poisson," etc. (p. 458). "Grappe marine, Uva marina."

These are plainly not scientific names. While the writer evidently grasps more or less clearly the meaning of genus and species, he has no conception of binomial nomenclature, as distinct from Latin equivalents of the vernacular names in French. Thus no one would take "Piscis aculeatus" as a generic and specific name for the stickleback or UVA MARINA for the Alga (SARGASSUM) known as Sea-Grape. Further along (Edition II) occurs "Poisson pétrifiée" indicated as "Ichthyolithus," which certainly is not the name of any genus. No scientific names, generic or specific, can be held to bear date from this first edition, 1764, of the dictionary of Valmont de Bomare.

"Nouvelle Édition," 1768, and "Édition II," 1775.

The "Nouvelle édition," dated 1768, is the one examined by Mr. Garman. Except for the paging it seems substantially identical with the edition of 1775, formally called the "second." It has a few binomial terms, mostly among the sharks. The use of Latin equivalents for the French vernacular is still continued, but these assume more frequently a binomial form, especially in the rather elaborate index. The first edition (octavo) contains no index.

In the editions of 1768 and 1775 the only new names to be considered are Galeus, Mustelus, Vulpecula, and Catulus.

On page 116 (Edition II) we read:

"CAGNOT BLEU, GALEUS GLAUCUS, Grand poisson cartilagineux de la famille des chiens de mer." Then follows a fair account of the Great Blue Shark (SQUALUS GLAUCUS L.; PRIONACE GLAUCA of recent writers), taken from the description of the "Chien de mer bleu" of Rondelet (de Piscibus, 1558, p. 296). Rondelet begins "GALEUS GLAUCUS, en Languedoc, CAGNOT BLEU, poisson cartilagineux," etc. He uses the name "Chien de mer," or GALEUS in a general sense, including the "Aiguillat" (ACANTHIAS), the Emissole, ("GALEUS LÆVIS"), the "Chien de Mer Étoilé, GALEUS ASTERIAS," the "Mélandre, GALEUS CANIS," and the "Chien de Mer bleu, GALEUS GLAUCUS."

The other sharks are treated under different heads by Valmont. The entire arrangement appears in the index to the same volume.

"Cagnot bleu, GALEUS GLAUCUS," does not appear in the Fourth Edition (1791).

On page cxxxvii "Mustellus" is defined:

"Espèce de Chien de mer, c'est le Galeus stellatus des auteurs."

The name SQUALUS MUSTELUS L. was mostly based on Artedi's references to the "Émissole" or unspotted dog-fish, the GALEUS LÆVIS of Rondelet and Valmont. The specific name MUSTELUS should remain with that species. On the "LÆVIS" the name MUSTELUS of Linck in 1790 was clearly based. The same species, the "Émissole Commune," is clearly the type of MUSTELUS Cuvier (1817). But if the name MUSTELUS Valmont be accepted, its type must be the dog-fish with round spots, SQUALUS STELLATUS of Risso, MUSTELUS ASTERIAS Valmont.

On page ccxxii of the Index occurs the name "Renard Marin, Vulpecula Marina." This is apparently borrowed from Willughby and it refers to Alopias vulpinus, the "Sea Fox" of modern authors. The name is not a "scientific" term, but merely a Latin rendering of the vernacular.

CATULUS rests on CATULUS VULGARIS, which is SCYLLIORHINUS CANICULA L. But the name is not available in any case, being preoccupied by CATULUS Kniphof, a genus of insects.

In the fourth edition (1791) Valmont gives a list of the genera of fishes. All those of Linnæus (1766) are enumerated, but no others and none of his own names are included in the list. Evidently he did not regard himself as having made additions to scientific nomenclature.

The eligibility of Valmont's names is questioned as binomial only by accident, and not accepted as genera by the author himself in 1791.

Galeus Valmont de Bomare, I, 371, 1768; type Squalus Glaucus L. "Cagnot bleu, galeus glaucus," with description.

If regarded as eligible GALEUS will replace PRIONACE and CYNOCEPHALUS.

Vulpecula Valmont de Bomare, III, 740, 1768; type Vulpecula marina Valmont — Squalus vulpinus Bonnaterre — Squalus vulpes Gmelin.

"Vulpecula marina; renard marin," with description.

If eligible, Vulpecula will replace Alopias Rafinesque, 1810.

Catulus Valmont de Bomare, IV, 51, 1768; type Squalus caniculus L. (Catulus major vulgaris Ray).

According to Sherborne, *Index Animalium*, it is preoccupied by CATULUS Kniphof, *De. Pedic.*, p. 16, 1759, a genus of insects. Equivalent to SCYLLIORHINUS Blainville.

Mustelus Valmont de Bomare, Ed. II, 746, 1768, and Ed. III, 1775, lxxxi; type Galeus asterias Valmont — Mustelus canis Mitchill, 1815 — Mustelus stellatus Risso, 1826.

"Galeus asterias aut Mustelus stellaris. Chien de mer à taches rondes."

XIII. GOUAN, Historia Piscium, 1770.

ANTOINE GOUAN.

Trachipterus Gouan, 104; type Trachipterus Gouani = Cepola Trachyptera Gmelin.

Lepadogaster Gouan, 105; type Lepadogaster gouani Gouan.

Lepidopus Gouan, 107; type Lepidopus Gouani Gouan (Trichiurus CAUDATUS Euphrasen).

XIV. KŒLREUTER, *Piscium Rarorum;* Novi Comm. Act. Petropolit. VIII, 1770.

JOSEPH GOTTLIEB KŒLREUTER.

Mola Kœlreuter, 337; type Mola aculeata Kœlreuter.
Antedates Mola Cuvier.

XV. FORSTER, Catalogue of Animals of North America, 1771.

JOHN REINHOLD FORSTER.

Remora Forster, 20; type Echeneis remora L. Equivalent to Remora of Catesby and of Gill.

XVI. BRÜNNICH, Collectio Nova Scriptorum Societatis Scientiarum Hafnensis, 1771.

M. T. Brünnich.

Regalecus Brünnich, III, 418; type REGALECUS REMIPES Brünnich (OPHIDIUM GLESNE Ascanius).
Also described in 1788.

XVII. CATESBY AND EDWARDS, Natural History of Carolina, Florida and the Bahama Islands, 1731-1750, by Mark Catesby; Edition Second, 1771, by George Edwards.

The large folio volume in which Mark Catesby published the record of his visit to the Bahamas and other parts of America has had an important place in the history of American Ichthyology. Numerous editions of this work with the same plates have been published in German, French and English.

Two of these, the Edwards' Edition of 1771, and the edition quoted as "Catesby, Pisc. Imag., Etc., in 1777," are subsequent to Linnæus and may perhaps deserve consideration in nomenclature, although apparently not eligible in view of Opinion 57, which regards the post-Linnæan translation of Hasselquist as ineligible. These editions contain tables showing the Linnæan names of Catesby's species. Except as an evidence of "revision," these have no bearing on Catesby's "genera." If the generic names with polynomial specific names, of Gronow, Klein, and others are accepted, we can hardly refuse notice to the Latin nouns used by Catesby as republished by Edwards. These nouns have the force of genera, and being built about actual specimens they are mostly monotypic; while those of Gronow and Klein are subdivisions of a system, each covering as a rule many species. The names of Catesby are listed as genera in Sherborne's Index Animalium by an author who is rather critical of Latin vernaculars. But Catesby wrote before Artedi and Linnæus had framed the idea of a genus. He was not therefore consciously engaged in the differentiation of generic groups. He was not, to borrow a phrase from Mr. Stejneger, "playing the game." For this reason it seems to us that his names should not be admitted to the system. It is, however, very important to have a decision once for all in this matter.

The names in Edwards' Catesby are of doubtful eligibility as being Latin vernacular nouns rather than genera, and as a reprint virtually unchanged of a pre-Linnæan work.

Umbla Catesby, I; type Esox barracuda Shaw (Sphyræna picuda Bloch & Schneider). "Umbla minor, maxima maxillis longioribus, the Barracuda" Catesby.

Equivalent to SPHYRENA and prior to it, if accepted in the system.

Mormyrus Catesby, 2; type ULÆMA LEFROYI (Goode). "MORMYRUS EX CINEREO NIGRICANS, the Bone-fish" Catesby.

Identification somewhat uncertain. The name in any event is subsequent to MORMYRUS L.

Saurus Catesby, 2; type Salmo fœtens L. "Saurus ex cinereo nigricans, the Sea Sparrow Hawk" Catesby. Identical with Synodus Gronow, 1763. Albula Catesby, 6; type Mugil curema Cuv. & Val. ("Albula Bahamensis Catesby).

A synonym of Mugil L., subsequent to Albula Gronow, 1763, and Albula Osbeck, 1761.

Hirundo Catesby, 8; type Cypselurus sp., "Hirundo" Catesby. Not Hirundo L., 1758, a genus of Swallows.

Turdus Catesby, 9; type Lutianus griseus (L.) "Turdus pinnis branchialibus carens, the Mangrove Snapper" Catesby. Not Turdus, 1758, a genus of Thrushes.

Alburnus Catesby, 12; type Cyprinus americanus L. — Menticirrus americanus. "Alburnus americanus, the Carolina Whiting" Catesby, type of Cyprinus americanus L., Syst. Nat., X, 321.

If accepted, the genus Alburnus must replace Menticirrus Gill, and the genus of Cyprinidæ called Alburnus by Rafinesque and Agassiz must receive another name.

Cugupuguacu Catesby, 14; refers to Epinephelus Maculosus (Cuv. & Val.). ("Cugupuguacu brazil, the Hind" Catesby).

Catesby's fish is not that called Cugupuguacu by Marcgrave. If this barbarous name be allowed it will replace Epinephelus. But it is evident that Cugupuguacu, Petimbuabo and Acarauna are not in any sense generic names, but attempts on the part of Catesby to identify his species with those called in Brazil by these vernacular names. In the case of Acarauna, Catesby is himself doubtful. Even in case names used in an actual generic sense, as Umbla, Aurata, Unicornis were allowed, Cugupuguacu and Acarauna should be rejected.

Saltatrix Catesby, 14; type Gasterosteus saltatrix L., which is based on Catesby's figure, ("Saltatrix, the Skipjack").

If allowed, will replace Pomatomus Lacepède, 1802.

Suillus Catesby, 15; type Lachnolaimus suillus Cuvier, "Suillus" Catesby, based on Catesby's figure.

If allowed, Suillus will replace Lachnolaimus Cuvier.

Aurata Catesby, 16; type Calamus (Cuv. & Val.). "Aurata Bahamensis, the Porgy," Catesby.

Not Aurata Fleming, 1828, which is Sparus L. If allowed, Aurata will replace Calamus Swainson.

Salpa Catesby, 17; type Sparus synagris L. (Lutianus synagris, based on "Salpa purpurascens variegata, the Lane Snapper," Catesby.

Prior to Salpa Forskål, 1775. If allowed, Salpa would replace Neomænis or Lutianus and perhaps add further to the confusion among the Salpoid Tunicates, although it is claimed that an earlier name, Dagysa, must replace Salpa Forskål.

Novacula Catesby, 18; type Scarus cæruleus Bloch. "Novacula cærulea, the Blue-fish," Catesby.

Name a synonym of Callyodon Gronow, but prior to Novacula Cuvier, which is a synonym of Xyrichthys Cuvier.

Petimbuabo Catesby & Edwards, 18; refers to Fistularia tabacaria L. "Petimbuabo brazil, the Tobacco Pipe-fish," Catesby.

A synonym of FISTULARIA L., but obviously not intended as a generic name.

Unicornis Catesby, 19; type Osbeckia scripta (Osbeck). "Unicornis Piscis Bahamensis, the Bahama Unicorn-fish," Catesby.

If accepted, would replace Osbeckia Jordan & Evermann.

Bagre Catesby, 23; type Silurus catus L. (Ameiurus catus L.) "Bagre secundæ speciei Marcgravei affinis, the Cat-fish," Catesby.

If accepted, BAGRE must replace AMEIURUS.

Harengus Catesby, 24; type Clupea sardina Poey. "Harengus minor bahamensis, the Pilchard," Catesby.

Equivalent to HARENGULA Cuv. & Val., and, if allowed, would replace the latter.

Anthea Catesby, 25; refers to Mesoprion analis Cuv. & Val. A species of Neomænis, Girard. "Anthea Quartus rondeleti, the Mutton-fish." Catesby.

Not intended as a generic name, being wrongly identified with the fourth Anthia of Rondelet.

Remora Catesby, 26; type Echeneis remora L. "Remora, the Sucking-fish," Catesby.

Equivalent to REMORA Forster, and of Gill.

Solea Catesby, 27; type Pleuronectes lunatus L., based on Catesby's figure. "Solea lunata et punctata, the Sole," Catesby.

Not Solea of Klein nor of subsequent writers. If allowed, Solea would replace Platophrys; and Solea of Klein, Quensel, Rafinesque and Cuvier would require a new name.

Orbis Catesby & Edwards, 28; type Tetraodon testudineus L. "Orbis Lævis variegatus, the Globe-fish," Catesby.

A synonym of Tetraodon L.

Psittacus Catesby, 29; type Labrus catesbæi Lacepède. "Psittacus piscis viridis bahamensis, the Parrot-ffsh," Catesby.

Not PSITTACUS L., 1758, a genus of parrots.

Acus Catesby, 30; type Esox osseus L. "Acus maxima squamosa viridis, the Green Gar-fish," Catesby.

Equivalent to PSALISOSTOMUS Klein and LEPISOSTEUS Lacepède.

Acarauna Catesby, 31; refers to Holacanthus cilaris L. "An acarauna major pinnis cornutis an paru brasiliensibus?, the Angel-fish," Catesby.

This name cannot be used to replace HOLACANTHUS as it represents a very doubtful identification on the part of Catesby; not at all a generic division.

Vipera Catesby, 9, Appendix; refers to VIPERA MARINA Catesby (CHAULIODUS SLOANI Bloch & Schneider).

As it is a fish, it cannot belong to the genus VIPERA L. VIPERA MARINA is apparently merely a vernacular name, sea-viper or viper-fish being intended.

Cataphractus Catesby, 9, Appendix; type SILURUS CATAPHRACTUS L.

— Doras cataphractus of authors — Cataphractus americanus Catesby.

This name, being preoccupied, cannot replace Doras Lacepède.

XVIII. GÜLDENSTADT, Acerina piscis ad Percæ genus pertinens: Nov. Comm. Acad. Petropol., 1774, XIX.

Anton Johann von Güldenstadt.

Not seen by us.

Acerina Güldenstadt, 455; type Perca cernua L. (Acerina kabir Güldenstadt).

Equivalent to CERNUA Schæfer.

XIX. Descriptiones Animalium quæ in Itinere Orientali Observavit, by Petrus Forskål (edited after the death of the author by Carsten Niebuhr). 1775.

Siganus Forskål, X; type Scarus rivulatus Forskål.

No definition. This genus has been of late years generally called TEUTHIS, but apparently this Linnæan name should remain with the group for which Browne first used it.

Torpedo Forskål, 1775, 16; type Raja torpedo (not of Linnæus) = Silurus electricus Gmelin. Malapterurus electricus Lacepède.

Forskål describes the Electric Cat-fish of the Nile under the erroneous name of RAJA TORPEDO L. He questions whether it might be allied to MORMYRUS or whether it might find a place among the torpedoes of Rondelet, or might it be type of a new genus. "Aut potius novum constituere genus. Certe determinatur torpedinis CHARACTER GENERICUS: Piscis branchiostegus: apertura lineari, obliqua supra pinnæ pectorales; corpore nudo: pinnis ventralibus seu abdominalibus; dentibus numerosissimis densis, subulatis." This statement leaves no question as

to the species in mind, but TORPEDO Houttuyn, 1764, if available, is of still earlier date.

Salaria Forskål, X and 22; type (without specific name) = BLENNIUS BASILISCUS L.

The genus is equivalent to BLENNIUS L. Not SALARIAS Cuvier.

Scarus Forskål, 25; type Scarus Psittacus Forskål.

The type no doubt intended was LABRUS SCARUS L., of the Mediterranean "antiquo nomine σκάφος"; but that species was not mentioned by Forskål, and another must be taken as the type. The name SCARUS was earlier used by Gronow as a synonym of LABRUS. SCARUS of Forskål must give way to CALLYODON of Gronow if the names of Gronow are to be adopted. This is unfortunate, as CALLYODON has been used by most authors as the name of another genus in the same family.

Abu-defduf Forskål, 59; type CHÆTODON SORDIDUS Forskål.

Equivalent to the later GLYPHISODON of Lacepède, 1803. The definition of this genus admits of no question. It occurs in the same paragraph with the equally accurate definition of Acanthurus. It may receive objection as a barbarous name. It was probably a "stop-gap" word for which Forskål intended to supply a Latin equivalent. This his editor after his death failed to do and we must apparently take it as it stands: "A generic name is a name without necessary meaning." (Baird.)

Acanthurus Forskål, 59; type Chætodon sohal Forskål; to be replaced by Hepatus Gronow, if Gronow's names are adopted; otherwise by Teuthis L.

Later restricted by authors to the first species named. CH. UNICORNIS.

Besides these names, clearly eligible, Forskål lists a number of subordinate groups or subgenera, under Perca, Scarus and Sciena. Some of these are properly and fully defined, and would be accepted without question if in Latin. But all are in Arabic, and may perhaps be taken as vernacular words, as one might divide a genus into "Groupers," "Snappers" and "Porgies." We may perhaps reject them on the same ground as that on which we reject "les sphéroides."

In addition to these more or less formal names are two sections, one under Scarus called "dentibus Abudjubbe," equivalent to Cheilinus Lac., and one "dentibus Harid," equivalent to Scarus. Louti and Daba are above reproach, except as to their Arabic origin. Abuhamrur is defined by reference to its type species. Naqua is based on a species referred with doubt to Sciena. Ghanan, Schour and Tahhmel are names only, identifiable by the correspondence with the Arabic names of their type species.

These names of Forskål doubtfully eligible, being vernacular and not meant as subgeneric.

Naqua Forskål, xvii; type Sciæna gibba Forskål.

With definition as "Piscis marinis rubri obscuris, an Sciæna 48?" Equivalent to Genyoroge Cantor, 1850.

Louti Forskål, 44; type Perca Louti Forskål.

With full definition. Equivalent to Variola Swainson, 1839, which apparently it should replace.

Daba Forskål, 44; type Perca areolata Forskål.

With full definition. Epinephelus Bloch, 1798, which apparently it should replace.

Abuhamrur Forskål, 44; type Sciæna hamrur Forskål.

With definition by reference to the type species. PRIACANTHUS Cuvier, 1817.

Hobar Forskål, 44; type Sciæna bohar Forskål.

With short definition. LUTIANUS Bloch, 1790.

Farer Forskål, 44; type Sciæna sammara Forskål.

With definition. HOLOCENTRUS Gronow, 1763.

Ghanan Forskål, 44; type Sciæna ghanam Forskål. Without definition. Scolopsis Cuvier, 1817.

Djabub Forskål, 44; type Sciæna Jarbua Forskål.

With definition. THERAPON Cuvier, 1817.

Gaterin Forskål, 44; type Sciæna Gaterina Forskål. With scanty definition. Plectorhinchus Lacepède, 1800.

Schour Forskål, 44; type Sciæna nebulosa Forskål.

Without definition. LETHRINUS Cuvier, 1817.

Tahhmel Forskål, 44; type Sciæna tahhmel Forskål.

Without definition. Kyphosus Lacepède, 1800, subgenus Opisthistius Gill, 1862.

XX. KLEIN, Neuer Schauplatz der Natur, nach den Richtigsten Beobachtungen und Versuchen, in Alphabetischer Ordnung.

Durch eine Gesellschaft der Gelehrten. Weidmann, Leipzig. (Quoted as "Gesellschaft Schauplatz.")

No author named, the account of the fishes compiled from *Historia Piscium Naturalis* Klein, perhaps by Philip Ludwig Statius Müller, professor at Erlangen. Vol. I, 1775; vol. II, 1776; vol. III, 1776; vol. IV, 1777; vol. V, 1777; vol. VI, 1778; vol. VII, 1779; vol. VIII, 1779; vol. X, 1781.

JAKOB THEODOR KLEIN.

In a recent monograph of the sharks and rays (Plagiostomia: Mem. Mus. Comp. Zool., Harvard College, XXXVI, 1916) Mr. Samuel Garman calls attention to the availability in nomenclature of names of genera accepted from Klein, a pre-Linnæan writer, in a post-Linnæan dictionary called "Neuer Schauplatz," or for convenience "Gesellschaft Schauplatz." This publication began, according to Mr. Garman, as a translation of Valmont de Bomare, but later it was extended and improved.

We find no copy of this work in the libraries of Washington and New York. It is probable that the copy in Mr. Garman's possession, which its owner has kindly placed at our disposal, is the only one now in the United States.

Mr. Garman remarks: "The Schauplatz referred to above is anonymous, it is true, but it gives the authorities for its generic and specific names, and thus its citations amount to republication after 1758, by the original authors, previous as the first publication may have been."

All the generic names used by Jacob Theodor Klein in his *Historia Piscium Naturalis*, 1740 to 1744, are here reproduced and accepted, thus bringing them for consideration into eligibility in scientific nomenclature. If accepted they therefore replace nearly all competing names except those of Artedi (1738) accepted by Linnæus (1758), and those of Gronow (1763).

Toward the middle of the eighteenth century the idea of genus among animals as a basis of classification became common property among naturalists. The name of the genus was recognized as consisting of a single word, but, until 1758, the species was indicated by a descriptive phrase attached to the name of the genus. By the device of binomial nomenclature, Linnæus made the system coherent, allotting to genus and species each a single word, the first a noun, the second of the nature of an adjective or genitive. In zoology, scientific nomenclature therefore dates from January 1, 1758, the time of the development of this system by Linnæus in the Tenth Edition of his Systema Naturæ.

Prior to Linnæus, on the basis of definite genera with polynomial species, three distinguished ichthyologists had separately developed, without knowledge of each other's work, a system of classification of fishes. These were Peter Artedi, "the Father of Ichthyology," in Upsala, in 1738; Jacob Theodor Klein, in Jena, 1740 to 1744; and Lorenz Theodor Gronow, in Leyden, 1754 to 1780. Of these authors the work of Artedi was the most compact and accurate, that of Klein the most elaborate, and that of Gronow based on the most material. Artedi's work was the basis of Linnæus's classification of the fishes. The principal part of the work

of Gronow was published in 1763. His names have been accepted as eligible by the International Commission of Zoological Nomenclature.

In this paper we give a list of these genera of Klein together with the Linnæan type, each as understood or as indicated by the present writer. In deciding on the type, the writer has been materially aided by the possession of a copy of Klein's Historia Piscium Naturalis, which was once the property of his commentator, Dr. Johann Julius Walbaum of Greifswald, and which contains profuse annotations in Walbaum's own handwriting.

Dr. Walbaum himself published in 1792 (Petri Artedi sueci Genera Piscium, 589-587) a classified record of the genera of Klein, but without actually accepting these as part of the System. Later Walbaum printed an Index to all these early names of various authors, as Ichthyologia Enodata sive Index Rerum (Leipzig, 1793). In this Index the generic and other names used by previous writers are arranged in alphabetical order with indication of the Linnæan synonymy. This again does not, in the view of the Zoological Commission (Opinion 21), involve the acceptance of any of these names. A reprint of Klein's Historiæ Piscium Naturalis was published, with notes by Walbaum, in 1802.

In the Gesellschaft Schauplatz Klein's names are frankly adopted, and the chief serious objection to be raised is that the species are named polynomially. We here omit those names in the Schauplatz, as Acipenser, Cyprinus, Xiphias, etc., which had been used by Linnæus and were already accepted in the System with the same significance. We are indebted to Mr. Garman for the verification of the list and for the insertion of page references.

Illustrations of the method of the elliptical and disorderly Schauplatz are the following. In vol. I, p. 918, 1777, we read:

"Botte. Rhombus, ein Kleinisches Fischgeschlecht, welches Linné, Pleuronectes G. 163, Müller Seitenschwimmer, Richter Butten nennt," etc. Description follows.

In III, p. 512, we find: "Greete, Kleinische, eine Art platteise, Butten, Richter: s(iehe) Botte, Rhombus, des Kleins und unsern Artikel Th. I, s. 918; desgleichen Flunder, Passer 4 des Kleins und unsern Artikel Th. III, s. 151" etc.

"Passer 4" is the species called "Passer asper s(eu), squamosus Rondelet. This species is Pleuronectes Limanda L. With (eight) other species named polynomially, it is set forth in the Schauplatz, after Klein. The quotations from Müller probably refer to the Nürnberg Edition of the Systema Naturæ, published in German by Professor Philip

Ludwig Statius Müller of Erlangen, in 1776. This edition in its Supplement contains a few new specific names but no new genera, so far as noticed.*

The reference to "Richter," refers apparently to a work published at Leipzig, in 1754, by J. G. O. Richter, entitled "Ichthyotheologie, oder Versuch die Menschen aus Betrachtung der Fische zu Bewunderung des Schöpfers zu führen." This we have not seen, but quote the title from Bosgoed. The same work appears in Dutch, in 1768, as "Godleerende Vischkunde."

The names in the "Gesellschaft Schauplatz" are all of doubtful eligibility, because not adopting the Linnæan Code as to species, and possibly because published in an anonymous dictionary.

Conger Klein, I, 22, 1775; type Muræna conger L. "Conger pinna membranacea" Klein.

A synonym of Conger Houttuyn.

Enchelyopus Klein, I, 32, 1775; type Trichiurus lepturus L. "Enchelyopus capite producto serpentino" Klein.

A synonym of Trichiurus L., not Enchelyopus Gronow.

Brama Klein, I, 61, 932, 1775; type Cyprinus brama L. "Brama Primi radio pinnæ dorsalis simplici" Klein.

Brama, if accepted, replaces Abramis Cuvier, and the marine genus now called Brama would take the name of Lepodus Rafinesque.

Galeus Klein, I, 70, 1775; type SQUALUS GALEUS L. "GALEUS ROSTRI EXTREMA PARTE PELLUCIDA" Klein.

Equivalent to Galeorhinus Blainville, 1816 = Galeus Cuvier, 1817, not Galeus Valmont, 1768, nor of Rafinesque, 1810.

Trutta Klein, I, 115, 1775; type Salmo trutta L. "Trutta tota argentea" Klein.

A synonym of TRUTTÆ L.

Leuciscus Klein, I, 172, 1775; type Cyprinus leuciscus L. "Leuciscus supra linea lateralis" Klein.

LEUCISCUS Klein would replace LEUCISCUS Cuvier, Rafinesque, Agassiz, for the same group.

Pelamys Klein, I, 176, 1775; type Scomber scombrus L. "Pelamys corpore castigato" Klein, the "makarel" of Willinghby.

The genus, based on the tunnies and the mackerels, is exactly coterminous with Scomber L. If regarded as eligible, the genus of snakes, Pelamys Daudin, must receive a new name.

^{*}See "On the Fishes Described in Müller's Supplemental Volume to the Systema Naturæ of Linnæus," D. S. Jordan, Proc. Acad. Nat. Sci., 1890, p. 48.

Harengus Klein, I, 209, 1775; type Clupea harengus L. "Harengus vulgaris" Klein.

Synonym of CLUPEA L.

Amphisilen Klein, I, 280, 1775; type Centriscus scutatus L. "Amphisilen" Klein.

Monotypic. A synonym of CENTRISCUS L., and AMPHISILE Cuvier.

Latargus Klein (misprint for Lathargus), I, 298, 1775; type Anar-HICAS LUPUS L. "LATARGUS ROSTRO RETUSO DENTIS HORRIDIS" Klein.

Synonym of ANARHICHAS L. Monotypic.

Leiobatus Klein, I, 316, 1775; type Raja oxyrhynchus L. "Leiobatus rostro omnium longissime producto" Klein.

Synonym of RAJA L. Includes all smooth rays.

Synagris Klein, I, 442, 1775; type Sparus aurata L. "Synagris dorso obscure viride" Klein.

A synonym of Sparus L. Includes many sparoid fishes.

Mystus Klein, I, 535, 1775; type "Mystus fluviatilis" Klein = Cyprinus barbus L., not Mystus Gronow, 1763.

Equivalent to Barbus Cuvier.

Passer Klein, I, 816, 1775; type Pleuronectes flesus L. "Passer cute densis tuberculis."

Not of Brisson, 1760, a genus of birds. A synonym of Flesus Moreau.

Glaucus Klein, I, 829, 1775; type Scomber glaucus L. "Glaucus Aculeatus maculis in utroque latere" Klein.

GLAUCUS, if allowable, replaces Cæsiomorus Lacepède, a genus distinct from Trachinotus Lacepède, 1803. Hypodis Rafinesque, 1810, is the same.

Rhombus Klein, I, 918, 1775, VIII, 88, 1779; type Pleuronectes Rhombus L. "Rhombus omnium minimus palmæ longitudine."

This name antedates RHOMBUS Da Costa, 1776, a genus of Snails. If eligible, it replaces Bothus Rafinesque, and is equivalent to RHOMBUS Cuvier, 1817. The other nominal species of RHOMBUS are synonyms of the Turbot, PSETTA MAXIMA (L.).

Rhombotides Klein, I, 922, 1775; type Chætodon cæruleus Bloch. "Rhombotides obscure cæruleus" Klein, after Catesby.

Synonym of ACANTHURUS Forskål, and of TEUTHIS of Browne and Linnæus, Klein suggests as substitute names, if RHOMBOTIDES is not acceptable, EUROPUS and PSETTA.

Sargus Klein, I, 966, 1775; type Sparus sargus L. "Sargus pinnis ventralibus" Klein.

SARGUS, if allowed, replaces DIPLODUS Rafinesque, and SARGUS Cuvier. The genus of Insects called SARGUS would in this case require a new name.

Dasybatus Klein, I, 991, 1775; type Raja pastinaca L. "Dasybatus cauda squameis osseis" Klein.

DASYBATUS, if allowed, replaces DASYATIS Rafinesque and TRYGON Adanson. Intended to include all the rough-skinned rays.

Prochilus Klein, I, 1043, 1775; type, as here restricted, "Prochilus Lævis lateribus carinatus" Klein (Blennius Pholis L.).

Equivalent to Pholis Cuv. & Val., a name used earlier for another genus by Gronow and Scopoli. In this sense Prochilus is a subgenus under BLENNIUS. . .

On plates in Bleeker's Atlas, Prochilus is used instead of Amphiprion, the species named first by Klein being Amphiprion ephippium (Bloch). We find, however, no formal restriction of Prochilus by Bleeker.

Labrax Klein, II, 32, 1775, and VIII, 164, 1779; type Perca Labrax L. "Labrax sive Lupus" Klein.

LABRAX, if allowed, replaces DICENTRARCHUS Gill = LABRAX Cuvier, 1817. Not LABRAX of Pallas, 1810, which is HEXAGRAMMOS.

Percis Klein, II, 45, Ed. 2, 1776; type Perca cernua L., as restricted by Bleeker, Systema Percarum Revisum. "Percis pinnis sex anteriore parte dorsalis 14" Klein.

Equivalent to Cernua Schæfer 1761, Gymnocephalus Bloch & Schneider 1801, to Acerina Cuvier 1817, and Cernua Fleming 1828; not Percis Scopoli 1777, nor of Cuvier.

Narcacion Klein, II, 237, 1776; IV, 726, 1777; type Raja torpedo L. "Narcacion demta cauda sinuosa circularis" Klein.

NARCACION, if accepted, replaces Torpedo Duméril, not of Forskål. If rejected, NARCOBATUS Blainville is next in date. Monotypic.

Mænas Klein, II, 360, 1776; type Sparus mæna L. "Mænas dilute viridis" Klein.

Mænas would replace Mæna Cuvier.

Cicla Klein, II, 412, 1776; type Labrus viridis L. "Cicla viridis oper-culorum" Klein.

Synonym of Labrus L. Comprises all the species of Labrus L., called Turdus or Merula by authors, these names also signifying "thrush." If accepted, Cichla Bloch & Schneider, 1801, would require a new name.

Rhina Klein, II, 587, 1776; type Rhina squatina L. "Rhina sive squatina" Klein.

RHINA, if allowed, replaces SQUATINA Duméril.

Rhinobatus Klein, II, 593, 1776; type Raja rhinobatus L. "Rhinobatus Seu Squatino raja" Klein.

RHINOBATUS would replace RHINOBATUS Bloch & Schneider, 1801, and SYRRHINA Müller & Henle, based on the same species.

Solea Klein, III, 115, 1776; type Pleuronectes solea L. "Solea squamis minutis" Klein.

Solea Klein would replace Solea Rafinesque, Solea Quensel and Solea Cuvier.

Pseudopterus Klein, III, 139, 1776; type Gasterosteus volitans L. "Pseudopterus qui Perca amboinensis" Klein.

Replaces, if allowed, PTEROIS Cuvier.

Tetragonoptrus Klein, III, 153, 1776; type Chætodon capistratus L. "Tetragonoptrus lævis ad caudam brunnea" Klein.

Synonym of Chætodon L. Bleeker uses this name in place of Chætodon, as Artedi's "type" of Chætodon—that is, the species first named—is a Pomacanthus. But Artedi included also true species of Chætodon in his list, and the name was adopted by Linnæus from his own use of it, in the Amænitates Academiciæ.

Batrachus Klein, III, 202, 1776; type Lophius piscatorius L. "Batrachus rictuque ranæ" Klein.

Synonym of Lophius L., not Batrachus Bloch & Schneider, 1801.

Mastaccembelus Klein, III, 271, 1776; type Esox belone L. "Mastaccembelus mandibulis longissimis" Klein.

Not Mastacembelus Gronow, 1763; stands as Belone Cuvier.

Platiglossus Klein, III, 300, 1776; type Halichæres marginatus Rüppell. "Platiglossus subrufus squamulis lævibus" Klein. Accepted by Bleeker as Platyglossus. Klein's figure is crude, but recog-

Lucius Klein, III, 506, 1776; type Esox lucius L. "Lucius . . . Rostro Quasi anserino" Klein.

Synonym of Esox L. = Lucius Rafinesque.

Cestracion Klein, III, 523, 1776; type SQUALUS ZYGÆNA L. "CESTRA-CION FRONTE ACUS" Klein.

CESTRACION, if accepted, replaces SPHYRNA Rafinesque and ZYGÆNA Cuvier. CESTRACION Cuvier is a different genus, HETERODONTUS Blainville, CENTRACION Gray.

Trichidion Klein, III, 592, 1776; type Polynemus virginicus L. "Trichidion corpore oblongo" Klein.

A synonym of Polynemus L. as restricted by authors generally. Monotypic.

Asperulus Klein, III, 686, 1776; X, 236, 1781; type Perca zingel L. "Asperulus vel aspredo dorso acuto" Klein.

Identical with ZINGEL Oken. Monotypic.

Corystion Klein, III, 762, 1776; type Trigla Lapponica L. "Corystion corpore granulato" Klein.

A synonym of Trigla L.

In volume III of the Gesellschaft Schauplatz, 1776, pp. 61-73, is given a list of the genera of fishes. This includes so far as we note all those proposed by Klein and those of Linnæus also, those of Klein appearing first. The names are not in alphabetical order, but follow the sequence of Klein's Historia Piscum Naturalis. This seems to imply a post-Linnæan acceptance of all of Klein's genera, even were their use in the text rejected. One new name appears:

Pristis Klein, III, 61, 1776; type "Pristis, der Sägeschnautz." Equivalent to Pristis Linck.

XXI. SCOPOLI, Introductio ad Historiam Naturalem, Prague, 1777.

JOHANN ANTON SCOPOLI.

A descriptive catalogue of the genera of animals and plants. The genera of fishes are mostly those of Linnæus and Gronow. No types are named save in the two new, Percis and Pteridium.

The following names given by Gronow are not accepted by Scopoli:

ENCHELYOPUS (regarded as a synonym of Blennius), Eleotris (= Gobius), Plecostomus (= Loricaria), Coracinus (= Sciæna), Callorhynchus (= Chimæra), Cataphractus (= Pegasus), Gymnogaster (= Trichiurus), Cyclogaster (= Liparis), Hepatus, (= Teuthis); Amia is used only in the Linnæan sense.

Liparis (Artedi) Scopoli, 453; type (not named) Cyclopterus liparis L.

Percis Scopoli, 454; type Cottus Japonicus Pallas.

Equivalent to HIPPOCEPHALUS Swainson, 1839, not Percis Klein.

Pteridium Scopoli, 454; type Coryphæna velifera Pallas (Pteraclis Gronow).

The following names of Gronow are introduced into Linnæan nomenclature by Scopoli, without mention of type. These date from Scopoli, 1777, if the *Zoophylaceum* of Gronow, 1763, be not accepted. ERYTHRINUS, 449
SYNODUS, 449
CALLYODON, 449
HOLOCENTRUS, 449
(misprinted HOLOCENTHRUS)
GONORHYNCHUS, 450
ALBULA, 450
UMBRA (Krämer), 450
ANABLEPS, 450
ANOSTOMUS, 451

Mystus, 451
Callichthys, 451
Aspredo, 453
Charax, 455
Clarias, 455
Cynædus, 455
Pholis, 456
Mastacembelus, 458
Channa, 459

XXII. FORSTER, Icones Inedita; Bibliotheca Banksia, 1777.

JOHN REINHOLD FORSTER.

Echidna Forster, 181; type Echidna variegata Forster = Muræna echidna Gmelin.

This generic name, according to Kaup, first appears in 1777, in the *Icones Ineditæ*. It must be retained for the genus of fishes, and is not available for the genus of mammals named ECHIDNA by Cuvier, = TACHYGLOSSUS.

XXIII. KLEIN, Gesellschaft Schauplatz, vols. IV, V, 1777.

JAKOB THEODOR KLEIN.

Oncotion Klein, IV, 46, 1777; type Cyclopterus Lumpus L. "Onco-TION COLORE NIGRICANTE" Klein.

A synonym of Cyclopterus L.

Cynocephalus Klein, IV, 161, 1777; type Squalus glaucus L. "Cynocephalus glaucus" Klein, as restricted by Gill.

CYNOCEPHALUS Boddært is of later date. Equivalent to PRIONACE Cantor.

Callarias Klein, IV, 327, 1777; type Gadus morrhua L. "Callarias sordide olivaceus" Klein.

Synonym of GADUS L.

Crayracion Klein, IV, 788, 1777; type Tetraodon spengleri Bloch. "Crayracion lævissimus ex terreo rufescens" Klein.

A synonym of Tetraodon L.

The type of this genus was first fixed by Bleeker, Atlas Ichth., 1865, 65. Bleeker observes: "La première espèce du genre compliqué que Klein en 1742 déjà nomma Crayracion étant le Tetraodon spengleri des auteurs ou au moins une espèce extrêmement voisine, je propose d'indiquer sous ce nom générique toutes

les espèces à tentacule nasale non perforée.... Le nom de Crayracion est antérieur de plusieurs années à celui de Tetraodon et devrait être substitué à ce dernier si le type du genre n'était pas reconnu à un genre distincte du Crayracion Lævissimus de Klein."

This fixes the type of Klein on the species figured by him, but Bleeker is in error in supposing Tetraodon spengleri to be a species with closed nostrils. The proper name for that group—(Arothron Müller: Tetraodon of several authors) seems to be Ovoides Cuvier.

Cataphractus Klein, IV, 828, 1777; type Cottus cataphractus L. "Cataphractus rostro resimo" Klein.

Not CATAPHRACTUS Gronow. Stands as Agonus Lacepède.

Capriscus Klein, V, 427, 1777; type Balistes capriscus Gmelin. "Capriscus tribus aculeis" Klein.

Synonym of Balistes L.

Cestreus Klein, V, 460, 1777; type Mugil cephalus L. "Cestreus dorso repando" Klein.

A synonym of Mugil L.

XXIV. FORSTER, Enchiridion, 1778.

JOHN REINHOLD FORSTER.

Harpurus Forster, 84; type Harpurus Fasciatus Forster. Equivalent to Hepatus, Teuthis and Acanthurus.

XXV. KLEIN, Gesellschaft Schauplatz, vols. VI to X, 1778 to 1781.

JAKOB THEODOR KLEIN.

Solenostomus Klein, VI, 32, 1778; type Fistularia tabaccaria L. "Solenostomus cute glabra" Klein.

Synonym of Fistularia. If Solenostomus is accepted, a new generic name is required for Solenostsmus Lacepède.

Sphyræna Klein, VI, 464, 1778; type Esox sphyræna L.

Would replace SPHYRÆNA Röse, unless UMBLA Catesby is available.

Gobio Klein, VII, 178, 1779; type Gobius Niger L. "Gobio branchi-ARUM OPERCULIS ET VENTRE FLAVICANTIBUS" Klein.

If allowed, Gobio Klein becomes a synonym of Gobius L. and a new name would be required in place of Gobio Cuvier.

Hippurus Klein, VII, 788, 1779; type Coryphæna hippurus L. "Hippurus pinnis branchialibus" Klein.

Synonym of Coryphæna L.

- Blennus Klein, VIII, 589, 1779; type Blennius ocellaris L. "Blennus Pinniceps coloris" Klein.
 Synonym of Blennius L.
- Psalisostomus Klein, X, 154, 1781; type Esox osseus L. "Psalisostomus omnium maximus" Klein.

 If allowed, replaces Lepisosteus Lacepède.
- XXVI. HERRMANN, Schreiben ueber eine neues Americanisches Fischgeschlecht, Sternoptix: Der Naturforscher, 2 Stück, vol. XVI, 1781.

JOHANN HERRMANN.

- Sternoptix Herrmann, 8, 36; type Sternoptix diaphana Herrmann. Monotypic.
- XXVII. HOUTTUYN, Beskrivning van Eenige Japanske Visschen: Actæ Harlemensis, XX, pt. 2, 1782.

MARTIN HOUTTUYN.

- Centrogaster Houttuyn, 333; type Centrogaster fuscescens Houttuyn. A synonym of Siganus Forskål.
- XXVIII. BLOCH, Naturgeschichte der Ausländischen Fische. Nine parts, 1785 to 1795. Part 2, 1786.

MARK ELIESER BLOCH.

- Kurtus Bloch, II, 122, 1786; type Kurtus indicus Bloch. Also written Kyrtus and Cyrtus. Monotypic.
- Macrourus Bloch, II, 150, 1786; type Coryphæna rupestris Fabricius, the "Ingmingoak" = Macrourus Berglax Lacepède, which is not the same as Coryphænoides rupestris Gunner.
- XXIX. BLOCH, Ueber Zwey Merkwürdige Fisch-Arten: Abhandlungen Böhmischer Gesellschaft, I, 1787.
- Notacanthus Bloch, 278; type Notacanthus Chemnitzi Bloch.

 This name was changed by Bloch in 1797 to Acanthonorus and the species to Acanthonorus nasus. Monotypic.

XXX. AHL, De Muræna et Ophichtho, 1787.

Jonas Nicholas Ahl.

Ophichthus Ahl, 5; type MURÆNA OPHIS L., as restricted. Unquestioned.

XXXI. ASCANIUS, Beretning um Silde-Tusten: Dansk. Selsk. 1788.
P. ASCANIUS

Regalecus Ascanius, III, 419; type OPHIDIUM GLESNE Ascanius.

Other dates have been quoted, for example "Icones," 1772, a series of plates of objects in nature. This may not be the oldest.

XXXII. BLOCH, Charactere und Beschreibung des Geschlechts der Papageyfische, Callyodon: Abhandlungen Böhmischer Gesellschaft, IV, 1788.

MARK ELIESER BLOCH.

Callyodon Bloch, 242; type (presumably) SCARUS CROICENSIS Bloch. Not seen by us.

XXXIII. BLOCH, Naturgeschichte der Ausländischen Fische, III, 1788.

Gymnetrus Bloch, III, 1; type Gymnetrus hawkeni Bloch. A synonym of Regalecus.

XXXIV. BROWNE, Civil and Natural History of Jamaica, Second Edition, 1789.

PATRICK BROWNE, M. D.

Originally published in 1756, reprinted in 1789, with a table showing the Linnæan equivalents of species named, and perhaps other revisions. No changes have been noted in the systematic part. In the original edition of 1756, as in later editions, the author refers to the works of Artedi and Gronow, with both of whom he was familiar. His recognition of genus as a technical term and not as a mere Latin noun is unmistakable. Browne adopts various genera of Artedi (later accepted by Linnæus), and to these he adds twelve new genera of his own. The species are

indicated by polynomial terms, to which are added the English vernacular names current in Jamaica.

The *History of Jamaica* is the ablest of all the works describing a local fish-fauna, prior to Linnæus, in quality comparable to the work of Osbeck, Hasselquist, and even of Forskål.

The revised republication of the work in 1789 may perhaps make the names of Browne eligible in nomenclature, if other authors rigidly correct as to generic names but polynomial as to species are to be considered. We have examined the original edition and the edition of 1789.

The names of Browne are perhaps not eligible as not binomial and as occurring in a slightly revised reprint of a pre-Linnæan work.

Following the precedent of Opinion 57, rejecting Hasselquist (*Iter Palestinum*), Browne's work would not be regarded as available.

Solenostomus Browne, 441; type "Solenostomus corpore terete subrotundo etc., the Trumpeter" = Fistularia tabaccaria L.

This name, if eligible, antedates Solenostomus Klein and Solenostomus Lacepède. Monotypic.

Menidia Browne, 441; type "Menidia corpore pellucido, linea laterali latiori argentea" — Atherina browni Gmelin, 1789.

This name, if accepted, replaces Anchoviella Fowler, besides rendering Men-IDIA Bonaparte ineligible. Monotypic.

Amia Browne, 442; type "Amia subargentea labris æqualibus ossiculus branchiostegus vigintiduobus, the Tarpon" = Megalops atlanticus Cuv. & Val.

This name is equivalent to Tarpon Jordan & Evermann. It is however preoccupied by Amia Gronow and by Amia L. Browne refers also to Amia, a second species, "the Ten-pounder," which is Elops saurus L., type of the genus Elops.

Mormyra Browne, 445; type "Mormyra major cærulea et aureo varia, the larger Painted Parrot-fish" = Scarus vetula Bloch & Schneider.

The name Mormyra, too close to Mormyrus L., is subsequent to Callyopon of Gronow, and to Scarus Forskål. Three other species of Parrot-fish are placed by Browne in Mormyra. Synonym of Callyopon.

Plagusia Browne, 445; type "Plagusia subcinerea cauda attenuata, the little Brown Sole with a pointed tail" = Pleuronectes Plagusia Bloch & Schneider, 1801 = Symphurus Plagusia Jordan & Evermann.

The name PLAGUSIA was adopted for this genus by Cuvier in 1829. It had however been earlier (1806) used by Latreille for a genus of Crustaceans.

Browne's name Plagusia, if available, has priority over Symphurus Rafinesque, 1820, as well as over the numerous later names applied to this group, the best known of which are Aphoristia Kaup and Ammopleurops Günther. As there is a still earlier species, Plagusia plagusa L., in this genus, the present species may perhaps stand as Plagusia ornata Lacepède, "Plagusa" being only a variant spelling of the same word.

Helops Browne, 445; type "Helops nigrescens varie nebulatim, the Hog-fish of Catesby" = Labrus rufus L.

If Helops, with this type, is accepted, it will eliminate the much confused generic name Bodianus Bloch, based on the same type (Bodianus bodianus Bloch = Labrus rufus L.). Harpe Lacepède and Cossyphus Cuvier are later names for the same genus. The first species indicated by Browne under Helops is Lachnolaimus maximus (Walbaum), the "Suillus or Great Hog-fish" of Catesby. This is "Helops rufescens iride partim rubra, partim albida, macula nigra post pinnim dorsalem, the Hog-fish" of Browne. In the interest of nomenclature, it would be better to suppress Bodianus rather than Lachnolaimus, if Helops is found eligible.

Cromis Browne, 449; type "Cromis subargenteo oblongus radiis anterioribus dorsalis ægre pungentibus, the Drummer" = Labrus cromis L. = Pogonias chromis of authors.

Browne cites four species of his genus Cromis, the "Silver Shad" (Gerres Cinereus), the Red-mouth Grunt (Hæmulon plumieri), the Stone Bass (Diapterus brasilianus), and the Drummer (Pogonias cromis). As the last named became Labrus cromis L., we may take it as the type of the genus Cromis of Browne, if the latter is eligible. Cromis would then, if accepted, replace Pogonias Lacepède. Chromis Cuvier, 1815, a more correct spelling of the same word, would then give place to Heliases Cuvier.

Macrocephalus Browne, 449; type "Macrocephalus argentea major linea lateralis recta nigra, the Snook" = Sclæna undecimalis Bloch.

Monotypic. Equivalent to Centropomus Lacepède. Preoccupied by Macro-Cephalus Swederus, 1787, a genus of Insects.

Pelmatia Browne, 449; type "Pelmatia major squamis vix perspicuus, the Mud-fish" = Gobiomorus dormitor Lacepède.

The name Pelmatia, if accepted, replaces Gobiomorus, which in turn has replaced the excellent name Philypnus of Cuvier.

The first species named under Pelmatia by Browne is "Pelmatia minor squamis majusculus, the Bullhead." This is Dormitator maculatus (Bloch). Browne gives a long and correct account of Pelmatia, and notes that his "second sort," the mud-fish, is "most esteemed and grows frequently to the length of 17 to 20 inches. It is the most delicate fish I have yet known, when in full perfection."

Thynnus Browne, 451; type "Thynnus bontii corpore crassiori et breviore etc., The Boneeto" = Scomber pelamys L.

This use of the name Thynnus is later than that of Fabricius, 1775, for a genus of Insects. It antedates Thynnus of Cuvier and it is equivalent to Thynnus of Lütken, a name later changed to Euthynnus by its author. Scomber Pelamys L., the Oceanic Bonito, is the Bonito of Cuba and Jamaica, where the Northern Bonito, Sarda sarda, is unknown. Of the "Boneeto," Browne observes that it is "a dry coarse fish, not much esteemed, though a hearty wholesome food." Should stand as Euthynnus Lütken. Monotypic.

Saurus Browne, 452; type "Saurus argenteus cute longitudinalis etc., the Leather Coat" = Scomber saurus Bloch & Schneider = Oligoplites saurus of authors.

Not Saurus Cuv. & Val., which is Synodus Gronow. If Browne's names are accepted, Saurus must replace Oligoplites Gill, its type species standing as Saurus saurus (Bloch & Schneider). Two other species of Saurus are enumerated by Browne, the "Red-tailed Jack" and the "White-fish."

Teuthis Browne, 454; type "Teuthis fusca cæruleo nitens, the Doctor (Turdus rhomboides Catesby)" = Chætodon cæruleus Bloch.

The first application of the name Teuthis (τεύθις, a squid) to a fish is that of Browne in 1756. Linnæus in 1766 accepted Browne's name Teuthis, and substituted it for Gronow's name Hepatus, 1763. The republication of Teuthis in 1789 would help to fix the generic name Teuthis with Browne's original species. Hepatus Gronow was primarily based on a specimen of the West Indian species called Chætodon chirurgus by Bloch, with which Chætodon cæruleus Bloch, the type of Teuthis, is strictly congeneric. The other species concerned, Teuthis Javus L., wrongly referred by Gronow to Hepatus, should stand as Siganus Forskål. Cuvier and Valenciennes, according to Günther, were in error in referring Gronow's specimen, the type of Teuthis hepatus L., to an East Indian species, since called Colocopus Lambdurus Gill.

The four species entangled in the confusion superimposed upon Browne, should, as Gill has shown, stand as follows:

HEPATUS OF TEUTHIS CÆRULEUS (Bloch & Schneider).

HEPATUS OF TEUTHIS HEPATUS L.

COLOCOPUS LAMBDURUS Gill.

SIGANUS JAVUS (L.).

Rhomboida Browne, 455; type "Rhomboida Alepidota argentea pinnis omnis brevibus, the Silver-fish" == Vomer browni Cuv. & Val., 1833.

The generic name RHOMBOIDA antedates that of Vomer Cuvier, and, if accepted, the type species would stand as RHOMBOIDA BROWNI (Cuv. & Val.) = PLATYSOMUS SPIXI Swainson, a species distinct from the northern Vomer setipinnis (Mitchill).

Under Rhomboida, Browne mentions also "Rhomboida major alepidota, the Larger Silver-fish, with long fins (Zeus cauda bifurca Artedi)." This must be

SELENE VOMER L. A third species is "RHOMBOIDA SQUAMOSA EX ARGENTEA, the Portugise." This seems to be Pomacanchus arcuatus L., the "Portugais" of the French Antillan fishermen.

XXXV. LINCK, Magazin Neuestes aus der Physik und Naturgeschichte, Gotha, 1790.

H. F. LINCK.

This work we have not seen; we quote from Gill.

Mustelus Linck, 31; type Squalus mustelus L. = Mustelus Lævis of authors.

Equivalent to Pleuracromylon Gill, not quite the same as Mustelus Valmont.

Pristis Linck, 31; type Squalus pristis L. Unquestioned.

Rhinobatos Linck, 32; type not specified: RAJA RHINOBATOS L. Equivalent to RHINOBATUS Klein.

Callichthys Linck, 32; type not specified: SILURUS CALLICHTHYS L. Equivalent to Callichthys Gronow.

Alosa Linck, 35 (scarcely defined); type not specified: CLUPEA ALOSA L. = ALOSA Cuvier.

Thymallus Linck, 35; type not specified: Salmo thymallus L. —
Thymallus Cuvier.

Mola Linck, 37; type DIODON MOLA L. Equivalent to Mola Koelreuter and Cuvier.

Soarus Linck (misprint for SAURUS), 37; type not specified and unidentifiable.

Barbatula Linck, 38; type Cobitis Barbatula L. Replaces Oreias Sauvage; Orthrias Jordan & Fowler.

XXXVI. BLOCH, Naturgeschichte der Ausländischen Fische, IV, 1790. MARK ELIESER BLOCH.

Bodianus Bloch, IV, 48; type Bodianus Bodianus Bloch, by tautonomy. Replaces Harpe Lacepède. By first restriction, Cuvier and Gill, the type would be Bodianus guttatus Bloch, a species of Enneacentrus Gill. Tautonomy has precedence in this case.

Lutianus Bloch, IV, 105; type Lutianus Lutianus Bloch. Unquestioned. Also spelled Lutjanus.

XXXVII. WHITE, Journal of a Voyage to New South Wales, 1790.

J. White.

Enoplosus White, plate 39; type CHÆTODON ARMATUS White.

Lacepède quotes the name ENOPLOSUS from White. We have not seen this paper, and the name may have been first printed by Lacepède.

XXXVIII. VALMONT DE BOMARE, Dictionnaire etc., Edition IV, vol. VIII, 1791.

JEAN CHRISTOPHE VALMONT DE BOMARE.

Acus Valmont; type Acus aristotelis Valmont = Syngnathus acus L.

After Willughby. Same as Syngnathus L.

XXXIX. SHAW, Description of STYLEPHORUS CHORDATUS, a new fish: Transactions of the Linnæan Society of London, I, 1791.

GEORGE SHAW.

Stylephorus Shaw, I, 90; type Stylephorus chordatus Shaw. Monotypic.

XL. WALBAUM, Artedi Piscium, 1792.

JOHANN JULIUS WALBAUM.

Curimata Walbaum, 80; type Salmo Marcgravii Walbaum, based on "Charax Maxilla superiore longiore" Gronow, which is Salmo cyprinoides L.

CURIMATA should replace CURIMATUS Cuvier for this genus.

XLI. BLOCH, Naturgeschichte der Ansländischen Fische, VI, VII, 1792, 1793.

MARK ELIESER BLOCH.

Anthias Bloch, VI, 97, 1792; type Labrus anthias L. = Anthias sacer Bloch.

Unquestioned. Aylopon Rafinesque is a substitute name, Anthias being said to be preoccupied. We do not find it so. Anthia, a genus of Beetles, dates from 1801.

Epinephelus Bloch, VII, 11, 1793; type Epinephelus marginalis Bloch = Perca fasciata Forskål, by general consent.

The genus Epinephelus was based on E. Afer, E. Marginalis, E. Merra, and E. Ruber. Marginalis and Merra are congeneric, and belong to the great group called Epinephelus by Gill, Bleeker, and nearly all recent authors. Of these, marginalis is typical. The species named first, afer, has been on that account chosen as type by Fowler, 1907. This species was separated as the type of Alphestes by Bloch & Schneider, 1801. Ruber was named as type by Jordan & Gilbert, 1883. This species under another name (acutifostris Cuv. & Val.) became the type of Parepinephelus Bleeker, 1875. Justice and convenience are best served by retaining the name Epinephelus for its chief components, as understood by nearly all authors. Otherwise the genus would stand as Cerna Bonaparte, 1837, unless, with Fowler, we recognize Epinephelus gigas (Perca gigas) L. as the type of Serranus Cuvier, 1817, a change we think unnecessary. If the subgenera of Forskål, with Arabic names, are recognized, Epinephelus must give place to Daba.

Gymnocephalus Bloch, VII, 24, 1793; type Perca schrætzer L., equivalent to Cernua Schæfer, Acerina Cuvier, and Cernua Fleming.

Johnius Bloch, VII, 132, 1793; type Johnius carutta Bloch, as restricted by Gill.

Lonchiurus Bloch, VII, 143, 1793; type Lonchiurus barbatus Bloch, 1793 = Perca lanceolata Bloch, 1788.

Monotypic. Corrected by later writers to Lonchurus.

Cataphractus Bloch, VII, 80, 1793; type Silurus callichthys L. as here restricted.

A synonym of CALLICHTHYS.

XLII. RÖSE, Petri Artedi Angermannia-Sueci Synonymia Nominum Piscium etc. Greifswald. Edition II, 1793.

Anton Ferdinand Röse.

This article, published as a supplement to Walbaum's Artedi Piscium, enumerates the generic names of Artedi and others, the species in their original polynomial form. In an Appendix are given a few new generic names, mostly taken from Aristotle. These genera are not described, nor are their species named, but the synonymy is fully given. Some of them had been already used by other authors. In our judgment, these names are eligible, and a few maintain priority of date.

Phycis Röse, 111; type qualç Aristotle, Phycis tinca Bloch & Schreider. Gadus blennioides Brünnich.

This is identical with Phycis Bloch & Schneider, 1801; the latter, but not the former, antedated by Phycis Fabricius, 1798, a genus of Insects. Phycis Röse replaces Emphycus Jordan & Evermann, 1898.

Cicla Röse, 112; type "Cicla vix palmaris" Röse, μίχλη Aristotle, a species of Labrus, perhaps L. viridis L.

CICLA Klein is identical with that of Röse. Schneider, more correctly, wrote the word CICHLA, but applied it to a different group.

- Sphyræna Röse, 112; type σφύρᾶινα Aristotle = Esox sphyræna L. This antedates Sphyræna Bloch & Schneider, 1801, for the same genus.
- Hepatus Röse, 113; type ήπατος Aristotle, which is probably Labrus Hepatus L., the type of the genus Paracentropristis Bleeker. Hepatus Gronow is wholly different.
- Capriscus Röse, 114; type καπρίσκος Diphili, κάπρος Aristotle, which is probably Balistes capriscus L.

A synonym of Balistes L.

Tænia Röse, 114; type ταινία Aristotle = Cepola τænia L.

The genus is equivalent to CEPOLA L., and is preoccupied in Worms by TÆNIA L.

- Pholis Röse, 116; type φολίς Aristotle Blennius Pholis L. Equivalent to Pholis Cuv. & Val., not of Scopoli, 1777.
- Citharus Röse, 116; type κιθάρος Aristotle = Pleuronectus linguatula L.

Equivalent to CITHARUS Bleeker, 1862, and EUCITHARUS Gill, 1888; not CITHARUS Reinhardt, 1838, which is HIPPOGLOSSOIDES.

Liparis Röse, 117; type "Liparis nostras Johnson" = Cyclopterus Liparis L.

Equivalent to Cyclogaster Gronow and Liparis Scopoli.

Chelon Röse, 118; type χάλλων or χέλων Aristotle, Chelon of Gesner, which is probably Mugil chelo Cuv. & Val.

Probably equivalent to CHENOMUGIL Gill, but the European and American types need further comparison.

XLIII. LATHAM, Essay on the various species of Saw-Fish: Transactions of the Linnaan Society of London, 1794.

JOHN F. LATHAM.

Pristis Latham, II, 276; type Squalus pristis L. Same as Pristis Linck.

XLIV. VAHL, Beskrivelse af en nye Fiskeslaegt: Shrivt. Naturh. Selsk., Kjöbenhavn, III, 1794.

M. VAHL.

Cæcula Vahl, III, 2, 149; type Cæcula Pterygera Vahl. Monotypic.

XLV. BLOCH, Naturgeschichte der Ausländischen Fische, VIII, 1794; IX, 1795.

MARK ELIESER BLOCH.

- Platystacus Bloch, VIII, 52, 1794; type Platystacus cotylephorus Bloch, as usually restricted.
- Ophicephalus Bloch, VIII, 137, 1794; type Ophicephalus punctatus Bloch.

Unquestioned. Corrected by later writers to Ophiocephalus.

Sphagebranchus Bloch, IX, 88, 1795; type Sphagebranchus rostratus Bloch.

Monotypic.

Gymnothorax Bloch, IX, 83, 1795; type Gymnothorax muræna Bloch — Muræna helena L.

A synonym of Muræna L. Günther, Cat. Fish, VIII, p. 100, 1870, restricts the names to allies of Muræna afra = Lycodontis McClelland, an arrangement apparently not defensible, as Gymnothorax was plainly a substitute name for Muræna, and must retain the same type, Muræna helena L.

Synbranchus Bloch, IX, 86, 1795; type Symbranchus Marmoratus Bloch.

Name corrected by later writers to SYMBRANCHUS.

- Platycephalus Bloch, IX, 96, 1795; type Platycephalus spathula Bloch = Cottus insidiator Forskål = Callionymus indicus L. Unquestioned.
- Gastrobranchus Bloch, XII, 51, 1797; type Gastrobranchus cæcus Bloch = Myxine glutinosa L.

A synonym of MYXINE L.

Acanthonotus Bloch, XII, 113, 1797; type Acanthonotus nasus Bloch, 1797 = Notacanthus chemnitzi Bloch, 1787.

A needless substitute name for Notacanthus.

XLVI. FABRICIUS, Beskrivelse over to sieldne Grönländske Fiske: Skrivt. Naturhist. Selskab. Kjöbenhavn, 1793, II.

OTTO FABRICIUS.

Campylodon Fabricius, 12; type Campylodon (fabricii Reinhardt), 1838.

A synonym of Notacanthus Bloch. Mononomial and monotypic.

XLVII. VOLTA, Ichthyolithologia Veronensis, 1796.

SERAFINO VOLTA.

Blochius Volta, 53; type Blochius longirostris Volta (Family Blochiidæ, fossil).

XLVIII. LACEPÈDE, sur le Polyodon feuille: Bull. Sci. Soc. Philom., 1797.

Bernard Germain Étienne de la Ville-sur-Illon Comte de Lacepède.

The name of this author should be written Lacepède. Sherborne, Index Animalium, says: "A letter dated 1831 is signed b. g. é cte. de Lacepède.' This spelling and accentuation should be adhered to."

Polyodon Lacepède, 49; type Polyodon folium Lacepède. Monotypic.

XLIX. CUVIER, Tableau Élémentaire, 1798.

GEORGES JEAN LEOPOLD NICOLAS FRÉDÉRIC CUVIER.

Mola Cuvier, 323; type Diodon mola L.

Equivalent to Mola Koelreuter. Prior to Orthagoriscus Bloch & Schneider, 1801. Monotypic.

Murænophis Cuvier, 329; type Muræna helena L. A synonym of Muræna L.

L. GEOFFROY SAINT HILAIRE, Description d'un nouveau Genre de Poisson: Bull. Soc. Sci. Philom., III, "An X de la République," 1798.

ÉTIENNE GEOFFROY SAINT HILAIRE.

Polypterus St. Hilaire, 97; type Polypterus bichir St. Hilaire. Monotypic.

LI. RETZIUS, Lampris, En ny Fiskslagt Beskriven: Vet. Acad. Nya Handl., Stockholm, XX, 1799.

A. J. Retzius.

Lampris Retzius, 91; type Zeus guttatus Brünnich = Zeus regius Bonnaterre.

LII. SHAW, Naturalist's Miscellany, 1799.

GEORGE SHAW.

Trachichthys Shaw, 378; type Trachichthys Australis Shaw. Monotypic.

LIII. CUVIER, Leçons d'Anatomie Comparée, 1800.

GEORGES CUVIER.

Ovoides Cuvier, 1, tab. 1; type Ovoides fasciatus Lacepède = Tetro-DON STELLATUS.

After "LES Ovoides Lacepède," 1798. Replaces Arothron Müller.

LIV. LACEPÈDE, Histoire Naturelle des Poissons, *vol. I, 1798; II, 1800.

Bernard Germain Étienne de la Ville-sur-Illon, Comte de Lacepède (here called "Citoyen La Cepède").

The generic names in Volume I, 1798, and Volume II, 1800, to page 160, are nearly all given in French vernacular and are therefore ineligible. Scientific forms for most of these were supplied by Duméril, Zoologie Analytique, 1806, from which work the generic names in question must be dated.

Aodon Lacepède, I, 297, 1798; type Squalus Massasa Forskål, as restricted by Jordan & Evermann.

A shark, perhaps imaginary, with no teeth and with long pectorals. The Latin name Aopon is used, as well as the French "LES Aopons."

Ovoides (Lacepède), 521, "LES OVOIDES"; type "L'OVOIDE FASCÉ."

A front view of Tetraodon stellatus L. Equivalent to Ovoides Cuvier.

Spheroides (Lacepède) Duméril (LES SPHÉROIDES), II, 22, 1800; type LE SPHÉROIDE TUBERCULÉ Lacepède.

A front view of Tetraodon spengleri Bloch. A synonym of Tetraodon as here understood.

In the original edition the author styles himself "Citoyen La Cepède."

^{*} Of this work we have before us two reprints, neither with the original pagination. This, however, we are able to give, through the kindness of Mr. Henry W. Fowler of the Academy of Natural Sciences of Philadelphia, who has supplied us with a complete list of the genera and the pages on which they occur.

Macrorhynchus (Lacepède) Duméril (LES MACRORHYNQUES); type LE MACRORHINQUE ARGENTÉ Lacepède, SYNGNATHUS ARGENTEUS Osbeck.

Probably replaces DICROTUS Günther.

Cæcilia Lacepède), II, 134, 1800 (LES CÆCILIES); type CÆCILIA BRAN-DERIANA Lacepède = MURÆNA CÆCA L.

Not CÆCILIA L., a genus of Amphibians. A synonym of SPHAGEBRANCHUS Bloch.

- Monopterus (Lacepède), Duméril, II, 138, 1800 (LES MONOPTÈRES); type Monopterus Javanensis Lacepède.
- Notopterus Lacepède, II, 189, 1800; type Gymnotus kaperat Bonnaterre (Gymnotus notopterus Pallas).
- Ophisurus Lacepède, II, 195, 1800; type MURÆNA SERPENS L. as restricted by Risso, 1826.
- Triurus Lacepède, II, 200, 1800; type Triurus Bougainvillei Lacepède, later called Pomatias by Bloch & Schneider.

Unidentified. A deep-sea fish, apparently allied to Aulostomatomorpha Alcock, but without ventral fins.

Apteronotus Lacepède, II, 208, 1800; type Apteronotus passan Lacepède = Gymnotus albifrons L.

Must replace Sternarchus Bloch & Schneider.

- Odontognathus Lacepède, 220, 1800; type Odontognathus Muricatus Lacepède.
- Macrognathus Lacepède, II, 283, 1800; type Ophidium aculeatum L. Replaces Rhynchobdella Bloch & Schneider, with the same type. The name Macrognathus was used by Gronow in 1754 (but not in 1763) to designate the group called Belone Cuvier.
- Comephorus Lacepède, II, 312, 1800; type Callionymus baikalensis Bonnaterre. Monotypic.
- Rhombus Lacepède, II, 312, 1800; type STROMATEUS ALEPIDOTUS L. Preoccupied, replaced by Peprilus Cuvier.
- Murænoides Lacepède, II, 324, 1800; type Blennius murænoides Sujef (Blennius gunnellus L.). Equivalent to Pholis Scopoli, 1777.
- Calliomorus Lacepède, II, 343, 1800; type Callionymus indicus L. Synonym of Platycephalus Bloch.

Batrachoides Lacepède, II, 351, 1800; type Batrachoides tau Lacepède.

Not GADUS TAU L.

Because the body is said to be covered with scales, "molles, petites, minces, rondes, brunes, bordees de blanc et arrosées par une mucosité três abondantes," we cannot identify this genus with the naked Gadus tau L., which is identical with the type of Opsanus Rafinesque.

- Oligopodus Lacepède, II, 511, 1800; type Coryphæna velifera Pallas. Equivalent to Pteraclis Gronow.
- Hiatula Lacepède, II, 522, 1800; type Hiatula Gardeniana Lacepède = Labrus onitis L. = Labrus hiatula L.

Not Hiatula Modeer, 1793, a genus of Mollusks. Gives way to Tautoga Cuvier.

- Tænioides Lacepède, II, 532, 1800; type Tænioides Hermannianus Lacepède.
- Gobioides Lacepède, II, 576, 1800; type Gobius broussoneti Lacepède, as restricted by Jordan & Evermann, 1898.
- Gobiomorus Lacepède, II, 583, 1800; type Gobiomorus dormitor Lacepède, as restricted by Jordan.

Replaces Philypnus Bloch & Schneider, 1801.

- Gobiomoroides Lacepède, II, 592, 1800; type Gobiomoroides pison Lacepède — Gobius pisonis L., a species of Eleotris Gronow. Monotypic.
- Gobiesox Lacepède, II, 595, 1800; type Gobiesox Cephalus Lacepède.

 Monotypic.

LV. BLOCH & SCHNEIDER, Systema Ichthyologia, 1801.

MARK ELIESER BLOCH.

Edited and extended by JOHANN GOTTLOB SCHNEIDER.

Batrachus Bloch & Schneider, 42; type Batrachus surinamensis Schneider, as restricted by Jordan & Evermann.

The name has been usually applied to the congeners of Gadus tau L., not of Bloch, the group called Opsanus by Rafinesque. But no ally of the scaleless Gadus tau is placed in Batrachoides by Lacepède or in Batrachus by Schneider, only scaly species being known to either.

Enchelyopus Bloch & Schneider, 50; type, as first restricted, Gadus CIMBRIUS L. (RHINONEMUS CIMBRIUS Gill).

Not Enchelyopus of Gronow, which is Zoarces Cuvier, nor of Klein, which is Trichiurus.

Phycis Bloch & Schneider, 56; type Blennius phycis L. (Phycis tinca Bloch & Schneider).

Equivalent to Phycis Röse, 1793; not Phycis Fabricius, 1798, a genus of Butterflies.

Periophthalmus Bloch & Schneider, 63; type Periophthalmus papilio Bloch & Schneider.

Eleotris Bloch & Schneider, 65; type Eleotris Gronow (Gobius Pisonis Gmelin).

The name is borrowed from Gronow, whose ELEOTRIS is the ELEOTRIS of Cuvier and subsequent authors. But ELEOTRIS PISONIS is indicated by Schneider as "a species of doubtful relations, perhaps a PERIOPHTHALMUS." We let the current arrangement stand, though on shaky foundation, unless the names of Gronow are finally accepted. The genus ELEOTRIS of Bloch & Schneider represents an utter confusion of species, many of them not gobies at all.

Brama Bloch & Schneider, 98; type Sparus Raji Bloch.

Not Brama Klein, which is Abramis Cuvier.

Monocentris Bloch & Schneider, 100; type Gasterosteus Japonicus Houttuyn.

Monotypic.

Sphyræna Bloch & Schneider, 109; type Esox sphyræna L. Equivalent to Umbla Catesby. Subsequent to Sphyræna Röse.

Trichogaster Bloch & Schneider, 164; type Trichogaster fasciatus Bloch & Schneider.

Centronotus Bloch & Schneider, 165; type Centronotus fasciatus Schneider.

A synonym of Pholis Scopoli.

Percis Bloch & Schneider, 179; type Percis Maculata Schneider.

Not Percis Klein nor of Scopoli. Replaced by Parapercis Bleeker. Monotypic.

Trichonotus Bloch & Schneider, 179; type Trichonotus setiger Bloch & Schneider.

Monotypic.

Monoceros Bloch & Schneider, 180; type Monoceros biaculeatus Bloch & Schneider (Chætodon unicornis Forskål).

Name preoccupied in Mollusks. Equivalent to Naso Lacepède.

Grammistes Bloch & Schneider, 182; type Perca Sexlineata Thunberg.

A jumble of striped fishes, restricted by Cuvier to the Grammistes of Seba, G. SEXLINEATUS.

Synanceja Bloch & Schneider, 194; type Scorpæna horrida L. By common consent. Commonly written Synanceja.

- Amphiprion Bloch & Schneider, 200; type Lutjanus ephippium Bloch.
- Amphacanthus Bloch & Schneider, 206; type CHÆTODON GUTTATUS Bloch.

Equivalent to Teuthis L. as restricted = Siganus Forskål.

- Alphestes Bloch & Schneider, 236; type Alphestes afer Bloch & Schneider.
- Cephalopholis Bloch & Schneider, 311; type Cephalopholis argus Bloch & Schneider.

Monotypic. Replaces Enneacentrus Gill.

Calliodon Bloch & Schneider, 312; type Calliodon lineatus Bloch & Schneider (Scarus croicensis Bloch).

Equivalent to Callyodon Gronow.

Cichla Bloch & Schneider, 336; type CICHLA OCELLARIS Bloch & Schneider as restricted by Heckel, 1840.

Name to be changed if CICLA Klein is eligible.

Rhina Bloch & Schneider, 353; type Rhina ancylostomus Bloch & Schneider.

Not of Klein; equivalent to RHAMPHOBATIS Gill.

- Rhinobatus Bloch & Schneider, 353; type Raja Rhinobatus Forskål. Equivalent to Rhinobatos Linck.
- Anableps Bloch & Schneider, 389; type Anableps tetrophthalmus Bloch & Schneider (Cobitis anableps L.). Equivalent to Anableps Gronow and of Scopoli.
- Synodus Bloch & Schneider, 396; type Esox synodus L. Replaces Saurus Cuvier.
- Chauliodus Bloch & Schneider, 430; type CHAULIODUS SLOANI Schneider.
- Albula Bloch & Schneider, 433; type Albula conorhynchus Schneider (Esox vulpes L.). Albula Gronow.

Not Albula Osbeck. To stand as Butyrinus Lacepède, if Osbeck's names are accepted.

Pœcilia Bloch & Schneider, 453; type Pœcilia vivipara Bloch & Schneider.

By common consent.

- Polyodon (Lacepède) Bloch & Schneider, 457; type "LE POLYDON FEUILLE" Lacepède, 1798 = SQUALUS SPATHULA Walbaum.
- Rhynchobdella Bloch & Schneider, 479; type Rhynchobdella orient-Alis Bloch & Schneider — Ophidium aculeatum Bloch.

As restricted by Cuvier. A synonym of Macrognathus Lacepède, 1800.

Sternarchus Bloch & Schneider, 497; type Gymnotus albifrons L. A synonym of Apteronotus Lacepède, 1800.

Orthagoriscus Bloch & Schneider, (misprinted Orthragoriscus), 510; type Diodon Mola (Bloch).

Equivalent to Mola Kælreuter.

Bogmarus Bloch & Schneider, 518; type Bogmarus Islandicus Bloch & Schneider (Gymnogaster arcticus Brünnich).

A synonym of Trachipterus Gouan. Monotypic.

- Gymnonotus Bloch & Schneider, 521; type Gymnotus carapo L. (corrected spelling for Gymnotus).
- Ovum Bloch & Schneider, 530; type Ovum commersoni Bloch & Schneider = "L'Ovoide fascé, Lacepède, 1798.

Monotypic. Equivalent to Ovoides Cuvier. Ovum Martin, 1764, is recorded by Sherborne as a "vernacular name only."

Typhlobranchus Bloch & Schneider, 537; type TYPHLOBRANCHUS SPUR-IUS Bloch & Schneider.

Monotypic, not identified. A river eel of Tropical America, without gill-openings. Doubtless a synonym of Symbranchus.

Gnathobolus Bloch & Schneider, 556; type Odontognathus Mucro-NATUS Lacepède.

Equivalent to Odontognathus.

Pomatias Bloch & Schneider, 559; type Triurus Bougainvillei Lacepède.

Equivalent to TRIURUS.

- Fluta Bloch & Schneider, 565; type Monopterus Javanensis Lacepède. Equivalent to Monopterus. Like the two preceding, a needless substitute name.
- LVI. LACEPÈDE, Histoire Naturelle des Poissons, vol. III, 1802; IV and V, 1803.

BERNARD GERMAIN LACEPÈDE.

- Scomberoides Lacepède, III, 50, 1802; type Scomberoides commerson-IANUS Lacepède (Scomber Lysan Forskål).
- Caranx Lacepède, III, 57, 1802; type Scomber carangus Bloch = Caranx hippos L., as restricted by Bleeker, the first reviser.

The generic name CARANX was taken by Lacepède from the manuscripts of Commerson, who first applied the name to Scomber speciosus Forskål. In revising the genus, Bleeker referred speciosus to a new genus, GNATHANODON. This view Dr. Gill accepted at first, but later selected speciosus as the type of CARANX, leaving some older name as TRICROPTERUS Rafinesque or CARANGUS Griffith for the bulk of the species of this extensive group. Later, by the process of elimination, CARANX RUBER was selected by Jordan as type of CARANX. On the whole it seems

most just, as it is certainly most convenient, to recognize the right of Bleeker as "first reviser." CARANX CARANGUS is congeneric with C. RUBER.

Trachinotus Lacepède, III, 78, 1802; type Scomber falcatus Forskål.

Caranxomorus Lacepède, III, 82, 1802; type Scomber pelagicus L. Synonym of Coryphæna L.

Cæsio Lacepède, III, 85, 1802; type Cæsio cæruleoaureus Lacepède.

Cæsiomorus Lacepède, III, 92, 1802; type Cæsiomorus Bailloni Lacepède.

Genus probably valid; equivalent to GLAUCUS Klein.

Coris Lacepède, III, 96, 1802; type Coris Aygula Lacepède.

Gomphosus Lacepède, III, 100, 1802; type Gomphosus cæruleus Lacepède.

Naso Lacepède, III, 105, 1802; type Chætodon fronticornis L.

Adopted from Commerson ms. Commerson writes Naseus, but the form Naso occurs first. Identical with Monoceros Bloch & Schneider, the latter pre-occupied.

Kyphosus Lacepède, III, 114, 1802; type Kyphosus bigibbus Lacepède.

Osphronemus Lacepède, III, 116, 1802; type Osphronemus Gouramy Lacepède.

Written OSPHROMENUS by Günther.

Trichopodus Lacepède, III, 125, 1802; type Trichopodus mentum Lacepède (Osphronemus gouramy Lacepède).

Monodactylus Lacepède, III, 131, 1802; type Monodactylus falciformis Lacepède.

Called PSETTUS by Commerson in ms. as quoted by Lacepède. Monotypic.

Plectorhinchus Lacepède, III, 134, 1802; type Plectorhinchus CHÆTODONOIDES Lacepède.

Monotypic. Replaces DIAGRAMMA Cuvier.

Pogonias Lacepède, III, 137; type Pogonias fasciatus Lacepède = Labrus cromis Lacepède.

Bostrychus Lacepède, III, 144, 1802; type Bostrychus sinensis Lacepède.

Not Bostrichus Geoffroy 1762, a genus of Insects. Replaced by Bostrichthus Duméril, 1806, by Psilus Fischer, 1813, and by Ictiopogon Rafinesque, 1815.

Bostrychoides Lacepède, III, 144, 1802; type Bostrychoides oculatus Lacepède.

Monotypic.

Hemipteronotus Lacepède, III, 214, 1802; type Hemipteronotus Quin-QUEMACULATUS Lacepède (CORYPHÆNA PENTADACTYLA Gmelin). Coryphænoides Lacepède, III, 219, 1802; type Coryphænoides Houttuyni Lacepède (Coryphæna Japonica Houttuyn).

Not Coryphenoides Gunner. Replaced by Branchiostegus Rafinesque, 1815, which is earlier than Latilus Cuvier & Val., 1830.

Aspidophorus Lacepède, III, 221, 1802; type Aspidophorus armatus Lacepède (Cottus cataphractus Lacepède).

Equivalent to Agonus Bloch & Schneider.

- Aspidophoroides Lacepède, III, 227, 1802; type Aspidophoroides TRANQUEBAR Lacepède (Agonus monopterygius Bloch & Schneider).
- Scomberomorus Lacepède, III, 292, 1802; type Scomberomorus Plumieri Lacepède (Scomber regalis Bloch).
- Centropodus Lacepède, III, 303, 1802; type Scomber Rhombeus Forskål.

A synonym of Monodactylus Lacepède.

Centronotus Lacepède, III, 309, 1802; type Centronotus conductor Lacepède (Gasterosteus ductor Lacepède).

Not Centronotus Bloch & Schneider, 1801 (Pholis Scopoli). Replaced by Naucrates Rafinesque.

Lepisacanthus Lacepède, III, 320, 1802; type Lepisacanthus Japonicus Lacepède (Gasterosteus Japonicus L.).

Equivalent to Monocentris Bloch & Schneider, 1801. Monotypic.

Cephalacanthus Lacepède, III, 323, 1802; type Gasterosteus spina-RELLA I.

The young of some species of Dactylopterus. Monotypic.

Dactylopterus Lacepède, III, 325, 1802; type Dactylopterus pirapeda Lacepède (Trigla volitans L.).

Equivalent to CEPHALACANTHUS Lacepède.

- Prionotus Lacepède, III, 336, 1802; type Prionotus Evolans Lacepède. Monotypic.
- Peristedion Lacepède, III, 368, 1802; type Peristedion Malarmat Lacepède (Trigla cataphracta L.).

 Monotypic.
- Istiophorus Lacepède, III, 374, 1802; type Scomber Gladius Broussonet.

Monotypic. Spelled HISTIOPHORUS by Cuvier.

Apogon Lacepède, III, 411, 1802; type Apogon Ruber Lacepède (Mullus imberbis L.).

Monotypic. Equivalent to AMIA Gronow.

Macropodus Lacepède, III, 416, 1802; type Macropodus viridiauratus Lacepède.

Monotypic.

Cheilinus Lacepède, III, 529, 1802; type CHEILINUS TRILOBATUS Lacepède.

Monotypic.

- Cheilodipterus Lacepède, III, 539, 1802; type Cheilodipterus Lineatus Lacepède Cheilodipterus octovittatus Cuv. & Val., as restricted by Cuv. & Val.
- Hologymnosus Lacepède, III, 556, 1802; type Hologymnosus fas-CIATUS Lacepède (Coris annulatus Lacepède, 1802). Equivalent to Coris.
- Ostorhinchus Lacepède, IV, 23, 1803; type Ostorhinchus Fleurieu Lacepède.

Monotypic; subgenus of Apogon.

Dipterodon Lacepède, IV, 165, 1803; type DIPTERODON HEXACANTHUS Lacepède.

A species of Apogon, as restricted by Jordan & Evermann, Fishes North Mid. Amer., 1106. Not DIPTERODON Cuvier.

Centropomus Lacepède, IV, 248, 1803; type Sclæna undecimalis Bloch, by common consent, as restricted by Cuvier. Originally a peculiarly confused jumble of species.

- Tænianotus Lacepède, IV, 303, 1803; type Tænionotus triacanthus Lacepède, restricted by Cuv. & Val., Hist. Poiss., IV, 371.
- Micropterus Lacepède, IV, 324, 1803; type MICROPTERUS DOLOMIEU Lacepède.

 Monotypic.
- Harpe Lacepède, IV, 426, 1803; type Harpe cæruleoaureus Lacepède (Labrus rufus L.).

A synonym of Bodianus Bloch and of Helops Browne.

Pimelepterus Lacepède, IV, 429, 1803; type Pimelepterus Bosci Lacepède.

Monotypic. A synonym of Kyphosus Lacepède.

- Cheilio Lacepède, IV, 432, 1803; type Cheilio auratus Lacepède (Labrus inermis Forskål).
- Pomatomus Lacepède, IV, 435, 1803; type Pomatomus skib Lacepède (Perca saltatrix L.).

Monotypic. The name afterwards improperly transferred by Cuvier to a genus of Apogonidz, Epigonus Rafinesque.

Lacepède, IV, 438, 1803; type Leiostomus xanthurus Lacepède.

Monotypic.

- Centrolophus Lacepède, IV, 441; type PERCA NIGRA L.
- Leiognathus Lacepède, IV, 448; type Leiognathus argenteus Lacepède (Scomber edentulus Bloch).

Monotypic. Prior to Equula Cuvier.

- Acanthinion Lacepède, IV, 499, 1803; type Chætodon rhomboides L. Equivalent to Trachinotus.
- Chætodipterus Lacepède, IV, 503; type Chætodipterus plumieri Lacepède (Zeus faber Gmelin).

 Monotypic.
- Pomacentrus Lacepède, IV, 505, 1803; type Chætodon pavo Bloch. By general consent.
- Pomadasys Lacepède, IV, 515, 1803; type Sciæna argentea Forskål.

 Monotypic. Prior to Pristipoma Cuvier.
- Pomacanthus Lacepède, IV, 517, 1803; type Chætodon arcuatus L., as restricted by Cuvier.
- Holacanthus Lacepède, IV, 525, 1803; type Chætodon tricolor L., as restricted by Cuvier.
- Enoplosus (White) Lacepède, IV, 540, 1803; type Chætodon armatus White.

Monotypic.

Glyphisodon Lacepède, IV, 542, 1803; type Glyphisodon moucharra Lacepède (Chætodon saxatilis L.).

Equivalent to Abudefduf Forskål. Usually written Glyphidodon.

- Aspisurus Lacepède, IV, 556, 1803; type Chætodon sohar Forskål. Monotypic. Equivalent to Acanthurus Forskål, Teuthis L.
- Acanthopodus Lacepède, IV, 558, 1803; type Acanthopodus argenteus Lacepède (Monodactylus falciformis Lacepède).

 A synonym of Monodactylus.
- Selene Lacepède, IV, 560, 1803; type Selene argentea Lacepède (Zeus vomer Cuvier).
- Argyreiosus Lacepède, IV, 566, 1803; type Zeus vomer L. Monotypic. A synonym of Selene.
- Gallus Lacepède, IV, 583, 1803; type Gallus virescens Lacepède (Zeus gallus L.).

Monotypic. Not Gallus L., a genus of hens. Replaced by Alectis Rafinesque and Gallichthys Cuvier.

- Chrysotosus Lacepède, IV, 586, 1803; type Zeus Luna Gmelin. A synonym of Lampris. Monotypic.
- Capros Lacepède, IV, 590, 1803; type Zeus APER L. Monotypic.
- Achirus Lacepède, IV, 658, 1803; type Pleuronectes achirus L.

 As fixed by Jordan & Gilbert, 1883. Achirus fasciatus Lacepède was wrongly supposed to be identical with Pleuronectes achirus L.
- Makaira Lacepède, IV, 688, 1803; type Makaira nigricans Lacepède. Monotypic. A synonym of Istiophorus.
- Cirrhitus Lacepède, V, 2, 1803; type CIRRHITUS MACULATUS Lacepède.

 Monotypic. Written CIRRHITES by Cuvier.
- Cheilodactylus Lacepède, V, 5, 1803; type Cheilodactylus fasciatus Lacepède.

 Monotypic.
- Misgurnus Lacepède, V, 16, 1803; type Cobitis Fossilis L. Monotypic.
- Fundulus Lacepède, V, 37, 1803; type Fundulus mudfish Lacepède (Cobitis heteroclita Gmelin).
- Colubrina Lacepède, V, 40, 1803; type Colubrina Chinensis Lacepède. An unidentified Chinese painting, probably fictitious.
- Butyrinus Lacepède, V, 45, 1803; type Butyrinus banana Lacepède (Esox vulpes L.).
- Equivalent to Albula of Gronow and of Schneider, not Albula Osbeck. Should apparently replace Albula Gronow.
- Tripteronotus Lacepède, V, 47, 1803; type Tripteronotus hautin Lacepède (Salmo lavaretus L.).
 - Mutilated example. Equivalent to Coregonus L.
- Ompok Lacepède, V, 49, 1803; type Ompok siluroides Lacepède. Replaces Callichrous Hamilton.
- Macropteronotus Lacepède, V, 84, 1803; type Macropteronotus Charmuth Lacepède (Silurus anguillaris L.). Identical with Clarias Gronow.
- Malapterurus Lacepède, V, 90, 1803; type SILURUS ELECTRICUS L. Monotypic. A synonym of Torpedo Forskål.
- Pimelodus Lacepède, V, 93, 1803; type Pimelodus Maculatus Lacepède.
 - As restricted by Cuvier, Gill and authors.
- Doras Lacepède, V, 116, 1803; type SILURUS CARINATUS L.
- Pogonathus Lacepède, V, 120, 1803; type Pogonathus courbina Lacepède.
 - Identical with Pogonias Lacepède, 1802.

- Plotosus Lacepède, V, 129, 1803; type Platystacus anguillaris Bloch (Silurus anguillaris Forskål).
- Ageneiosus Lacepède, V, 132, 1803; type Ageneiosus armatus Lacepède (Silurus militaris L.).
- Macrorhamphosus Lacepède, V, 136, 1803; type SILURUS CORNUTUS L. Equivalent to Centriscus Cuvier, not of Linnæus.
- Centranodon Lacepède, V, 138, 1803; type Centranodon Japonicus Lacepède (Silurus imberbis Houttuyn) = Callionymus indicus L.

Monotypic and unidentifiable, perhaps based on rough notes of PLATY-CEPHALUS.

Hypostomus Lacepède, V, 144, 1803; type Hypostomus Guacari Lacepède (Loricaria plecostomus L.).

Monotypic. Identical with PLECOSTOMUS Gronow.

- Corydoras Lacepède, V, 147, 1803; type Corydoras Geoffroy Lacepède (Cataphractus punctatus Bloch).
- Tachysurus Lacepède, V, 150, 1803; type Tachysurus sinensis Lacepède.

A Chinese picture of some species of ARIUS Cuvier, which name it replaces, if identifiable.

- Osmerus Lacepède, V, 229, 1803; type Salmo eperlanus L. Equivalent to Osmeri L.
- Coregonus Lacepède, V, 239, 1803; type Salmo lavaretus L. Equivalent to Coregoni L.
- Characinus Lacepède, V, 269, 1803; type Salmo Gibbosus L. Equivalent to Characini L. and to Charax Gronow, Scopoli.
- Serrasalmus Lacepède, V, 283, 1803; type Salmo rhombeus L. Monotypic. Written Serrasalmo by Cuvier.
- Megalops Lacepède, V, 289, 1803; type Megalops filamentosus Lacepède.

Monotypic.

Lepisosteus Lacepède, V, 331, 1803; type Lepisosteus gavialis Lacepède (Esox osseus L.).

Usually written LEPIDOSTEUS.

- Scomberesox Lacepède, V, 344, 1803; type Scomberesox camperi Lacepède (Esox saurus Walbaum).

 Monotypic.
- Aulostomus Lacepède, V, 356, 1803; type Aulostomus chinensis Lacepède (Fistularia chinensis L.). Monotypic. Usually written Aulostoma.

Solenostomus Lacepède, V, 360, 1803; type Fistularia paradoxa Pallas.

Monotypic. Not Solenostomus Gronow nor of Klein.

Hydrargira Lacepède, V, 378, 1803; type Hydrargira swampina Lacepède (Fundulus majalis Walbaum).

Usually written Hydrargyra. Monotypic. Not separable from Fundulus.

Stolephorus Lacepède, V, 381, 1803; type Atherina Japonica Houttuyn (Spratelloides argyrotænia Bleeker).

Restriction of Jordan & Evermann, 1896.

The first species named by Lacepède, ATHERINA JAPONICA Houttuyn, was unknown to him, and very scantily and incorrectly described by its discoverer. Several authors—Bleeker, Jordan & Evermann—have assumed this species to be the type, and that it was congeneric with the second species named, from which Lacepède drew up his generic description and of which he gave a figure.

Study of the fauna of Nagasaki shows that no species of the modern genus Stolephorus has been yet found there and that the Atherina Japonica of Houttuyn is most likely a description from rough notes or from memory of Spratelloides argyrotænia Bleeker. Atherina Japonica was the first species to be formally named as type of Stolephorus. It would have been more convenient to assume the one species known to Lacepède to be his type, reverting to the system of Bleeker, who first acted on this supposition but who named no type formally. In that case Stolephorus would become the equivalent of Anchoviella Fowler, 1911. Menidia Browne, if available, would replace both. But it is necessary here as elsewhere to recognize the first formally stated type. If this is regarded as identifiable Stolephorus replaces Spratelloides.

Mugiloides Lacepède, V, 393, 1803; type Mugiloides Chilensis Lacepède (Esox Chilensis Molina).

Replaces Pinguipes Cuv. & Val.

Chanos Lacepède, V, 395, 1803; type Chanos arabicus Lacepède (Mugil Chanos L.).

Monotypic.

Mugilomorus Lacepède, V, 397, 1803; type Mugilomorus anna-caro-Lina Lacepède (Elops saurus L.). Synonym of Elops L.

Polydactylus Lacepède, V, 419, 1803; type Polydactylus plumieri Lacepède (Polynemus virginicus L.).

As understood by us at present, a synonym of POLYNEMUS L.

Buro (Commerson) Lacepède, V, 421, 1803; type Buro brunneus Lacepède (Teuthis hexagonatus Bleeker).

Monotypic. Same as SIGANUS.

Mystus Lacepède, V, 466, 1803; type Mystus clupeoides Lacepède (Clupea mystus L.), a species of Coilia Gray.

The name Mystus is preoccupied.

Clupanodon Lacepède, V, 468, 1803; type Clupea thrissa L.

As restricted by Rafinesque, 1815, through substitution for CLUPANODON the more euphonious name of Thrissa. The name CLUPANODON has been variously treated. It should properly replace Konosirus Jordan & Snyder, although Lacepède's account of "CLUPANODON THRISSA" is taken mainly from the West Indian "Caillieu-Tassart," Ophisthonema oglinum (Le Sueur), the Clupea thrissa of Broussonet, but not of Linnæus.

Mene Lacepède, V, 479, 1803; type Mene anna-carolina Lacepède (Zeus maculatus Bloch), Mene maculata of authors.

Monotypic.

Dorsuarius Lacepède, V, 482, 1803; type Dorsuarius nigrescens Lacepède.

A species of KYPHOSUS Lacepède. Monotypic.

Xyster Lacepède, V, 484, 1803; type Xyster fuscus Lacepède. Equivalent to Kyphosus. Monotypic.

Cyprinodon Lacepède, V, 486, 1803; type Cyprinodon variegatus Lacepède.

Monotypic.

Murænophis Lacepède, V, 627, 1803; type Muræna Helena Lacepède. Equivalent to Muræna L.

Gymnomuræna Lacepède, V, 648, 1803; type Gymnomuræna doliata Lacepède.

As first restricted by Kaup, 1856. Bleeker and Günther have used G. MARMORATA Lacepède as type, thus replacing UROPTERYGIUS Rüppell. A synonym of ECHIDNA.

Murænoblenna Lacepède, V, 652, 1803; type Murænoblenna olivacea Lacepède.

A synonym of MYXINE L. Monotypic.

Unibranchapertura Lacepède, V, 656, 1803; type Symbranchus marmoratus Bloch.

A synonym of Symbranchus.

LVII. SEWASTIANOFF, Acarauna, Piscium Thoracices, 1796 (1802).

Acarauna Sewastianoff, 357; type Acarauna Longirostris Sewastianoff (Gomphosus cæruleus Lacepède).

Equivalent to Gomphosus Lacepède, and apparently of later date. Not seen by us.

LVIII. COMMERSON, Lacepède, Histoire Naturelle des Poissons, II, 1798; III, 1800; IV, V, 1803.

PHILIBERT COMMERSON.

Commerson was an active and accurate naturalist-explorer who collected mainly in the South Seas. His specimens were accompanied by manuscript names, polynomial in form. The author had a full grasp of the meaning of "genus," as he spoke sometimes of a "genus novissimum," XYSTER, for example. Many of his generic names were adopted by Lacepède and have found their way into the system. The others are here enumerated. These have been formally accepted as eligible by the International Commission (Opinions 23 and 24 as to Antennarius and Aspro). We think that this decision might well be reconsidered as Commerson was not "binomial" and his names were not adopted by the author who first printed them as synonyms.

The names of Commerson may be ineligible as not binomial as to species and not accepted by the author who published them. Accepted provisionally by the International Commission.

Antennarius Commerson, I, 327, 1798, footnote; type Antennarius bivertex totus ater puncto mediorum, laterum albo Commerson (in foot-note) = Lophius commersonianus Lacepède.

Equivalent to Chironectes Cuvier and Antennarius Cuvier. Regarded as eligible, in Opinion 24, International Commission.

Alticus Commerson, II, 458, 1800, footnote under Blennius; type Alticus saltatorius pinna spuria in capite vertice, Blennius saliens Lacepède.

Accepted by Jordan & Seale, Fishes Samoa, 421, 1806. Equivalent to Rufis-Cartes Swainson. Cuv. & Val., XI, 337, 1836, adopted the name Salarias alticus for the Blennius saliens, "un petit Salarias qui nous paraît être celui-là même pour lequel Commerson a établi son genre, Alticus."

Sciænus Commerson, III, footnote under Caranxomorus; type Sciænus ex fusco cærulescens: Caranxomorus sacrestinus Lacepède, Labrus furcatus Lacepède.

Identical with APHAREUS Cuv. & Val., the name apparently a variant of SCI-ZENA. Apparently ineligible.

Naseus Commerson, III, 105, under Naso; type Naseus Fronticornis Fuscus Commerson (Chætodon Fronticornis L.). Equivalent to Naso Lacepède, Naseus Cuv. & Val.

- Coryphus Commerson, III, 1802, footnote under Coryphæna; type Coryphus chrysurus undique deauratus etc. Commerson, Coryphæna chrysurus Lacepède, Coryphæna hippurus L. Same as Coryphæna.
- Elops Commerson, III, 100, 1802, footnote under Gomphosus; type Gomphosus tricolor Lacepède.

Equivalent to Acarauna Sewastianoff or to Gomphosus Lacepède.

Psettus Commerson, III, 1802, footnote under Monodactylus; type Psettus spinis pinnarum ventralium loco duabus Commerson (Monodactylus falciformis Lacepède).

Revived by Cuvier & Valenciennes. A synonym of Monodactylus Lacepède. Not Psettus Klein.

- Odax Commerson, III, 1802, footnote under Scarus; type Odax odon Commerson = Scarus Chadri Lacepède = Scarus niger Forskål.

 Monotypic. Equivalent to Callyodon Gronow. If the names of Commerson are accepted, Odax Cuvier requires a new name.
- Mylio Commerson, III, 131, 1802, footnote under Sparus; type Mylio Lineis longitudinalibus pluribus Commerson Ms. = Sparus mylio Lacepède = Chætodon bifasciatus Bloch.

 Equivalent to Sparus L.
- Aspro Commerson, IV, 273, 1803, footnote; type Aspro dorso diptery-GIO DENTIBUS RARIS, ET LONGIS ET EXSERTIS etc. Commerson Ms. — CHEILODIPTERUS MACRODON Lacepède, as restricted by Jordan, Opinion 23, Zoolgical Nomenclature, 56, 1910.

A synonym of Cheilodipterus as now restricted. Not Aspro Cuvier.

Opisotomus Commerson, IV, 1803, footnote.

We have been unable to find this name.

Zanclus Commerson, V, 1803, footnote under Chætodon (misprinted Zanchus); type Zanclus transverse fasciatus Commerson Ms. — Chætodon cornutus Bloch.

Monotypic. Revived by Cuvier & Valenciennes, VII, 102, 1831.

Oculeus Commerson, V, 289, 1803, footnote under Megalops; type Oculeus seu megalops postremo pinnæ etc. Commerson (Megalops cyprinoides Lacepède).

Equivalent to Megalops.

Aulus Commerson, V, 1803, footnote under Fistularia; type Aulus urognomon etc., Fistularia tabacaria L. Equivalent to Fistularia.

Encrasicholus Commerson, V, 382, 1803, footnote under Clupea; type Encrasicholus mandibula inferiore breviore, tænia laterali argentea Commerson (Clupea vittargentea Lacepède).

Equivalent to Anchoviella Fowler (Menidia Browne).

Pterichthus Commerson, V, 401, 1803, footnote under Exocutus; type "Pterichthus pinnis pectoralibus radiorum sexdecim ventralibus intra corporis æquilibrium nequidem ad anum apice pertingentibus."

As indicated by Lacepède, this species, the one placed first by Commerson, seems to be Exocotus volitans L. A synonym of Exocotus.

Halex Commerson, V, 462, 1803, footnote under Clupea; type Halex corpore late catheteplateo etc. Commerson, Clupea fasciata Lacepède, a species of Leiognathus Lacepède.

LIX. PLUMIER, Lacepède, Histoire Naturelle des Poissons, II, 1798; III, 1800; IV, V, 1803.

CHARLES PLUMIER.

Le Père Plumier, a missionary in Martinique, sent to Lacepède numerous paintings of fishes with descriptions and manuscript names. The generic names used rest on exactly the same basis as those of Commerson. As they were polynomial and as they were not accepted by the author who published them in synonymy, we think that they should not be considered eligible in scientific nomenclature, a matter which awaits final decision.

The names probably not acceptable, as polynomial and as not adopted by the author who printed them.

Orbis Plumier, II, 504, 1800, in footnote under Tetraodon; type Orbis minimus Plumier = Tetraodon plumieri Lacepède = Tetraodon spengleri Bloch.

A synonym of Tetraodon.

Monoceros Plumier, II, 1800, in footnote under Balistes; type Monoceros Piscis clusii Plumier.

Probably same as Monacanthus ciliatus L. Equivalent to Monocanthus Cuvier. Not Monoceros Zimmermann, 1780, a genus of Gasteropods; not Monoceros Bloch & Schneider, 1801.

Asellus Plumier, III, 1802, footnote under Gobiomorus; type Asellus palustris Plumier (Platycephalus dormitator Bloch & Schneider.

Identical with Gobiomorus Lacepède, as restricted. Philypnus Cuvier.

- Pelamis Plumier, III, 1802, footnote under Scomberoides; type Pel-AMIS MINIMA, VULGO SAUTEUR Plumier (Scomber Saliens Bloch). Identical with Oligoplites Gill. Not Pelamys Klein.
- Trachurus Plumier, III, 1802, footnote under Caranxomorus; type
 Trachurus maximus squamis minutissimis Plumier = Car' anxomorus plumierianus Lacepède = Scomber trachurus L.
 As here restricted, the same as Trachurus Rafinesque, 1810.
- Scorpius Plumier, III, 1802, footnote under Scorpæna; type Scorpius NIGER CORNUTUS Plumier (Scorpæna plumieri Lacepède).

The name may be available for the subgenus of Scorpena, having the breast scaly (Parascorpena Bleeker). In the European type of Scorpena, Scorpena porcus L., the breast is scaleless.

Sarda Plumier, III, 141, 1802, footnote under Sparus; type Sarda CAUDA AUREA ET LUNATA Plumier (Sparus Chrysurus Bloch).

Equivalent to OCYURUS Gill. Not SARDA Cuvier, which requires a new name if the generic names of Plumier are accepted. Monotypic.

Erythrinus (Eritrinus) Plumier, IV, 347; type Erythrinus Polygrammos, Marignan apud caraibas Plumier (Honocentrus sogo Bloch).

A synonym of Holocentrus; name preoccupied. Elsewhere written Eritrinus.

Chrysomelanus Plumier, IV, 160, 1803, footnote under Sparus; type Chrysomelanus piscis Plumier, Sparus chrysomelanus Lacepède, Anthias striatus Bloch.

A synonym of Epinephelus.

Aper Plumier, IV, 1803, footnote under Sparus; type Aper seu turdus erythrinus, squamis amplis Plumier (Sparus abildgaardi Lacepède).

A synonym of Callyodon Gronow. Name preoccupied.

- Guaperva Plumier, IV, footnote under Selene; type Guaperva MARC-GRAVII, VULGO LA LUNE Plumier (Selene Argentea Lacepède). Identical with Selene.
- Sargus Plumier, IV, 166, footnote under Dipterodon; type Sargus ex auro virgatus Plumier (Dipterodon plumieri Lacepède = Sparus synagris L.

Same as NEOMÆNIS Girard. Not SARGUS Klein nor Cuvier. Not SARGUS Fabricius, about 1798, a genus of flies.

Pagrus Plumier, IV, 1803, footnote under Bodianus; type Pagrus LEUCOPHÆUS VULGO VIVANET GRIS APUD MARTINICAM Plumier = BODIANUS VIVANET Lacepède = LUTIANUS GRISEUS (L.).

Not Pagrus Cuvier, 1817. Equivalent to Neomænis Girard; same as Salpa Catesby.

Chromis Plumier, III, 546, 1803, footnote under Cheilodipterus; type Chromis seu tembra aureo-cærulea litturis fusca variegata Plumier (Cheilodipterus cyanopterus Lacepède), the "grygry" or "grogro" of Martinique, Umbrina coroides Cuv. & Val.

The name is older than UMBRINA, but later than CROMIS Browne. The specific name UMBRINA CYANOPTERA (Lacepède), based on Plumier's figure, must replace coroldes and Broussoneti for this species.

Cheloniger Plumier, IV, 542, 1803, footnote under Cheilodipterus; type Cheloniger ex auro et argenteo virgatus Plumier (Cheilodipterus chrysopterus Lac. (Perca nobilis L.).

The name CHELONIGER, if eligible, has priority over CONODON Cuvier.

Cephalus Plumier, V, 1803; type Cephalus americanus vulgo atoulri Plumier (Mugil cephalus L.).

A synonym of Mugil L.

Trichis Plumier, V, 1803, footnote under Clupea alosa; type "Trichis bellonii la pucelle" Plumier.

Doubtful, but wrongly identified by Lacepède with CLUPEA ALOSA L.

Acus Plumier, V, 1803, footnote under Sphyræna; type Acus americana, rostri longiori Plumier (Sphyræna acus Lacepède). Same as Sphyræna Röse, 1793.

LX. SHAW, General Zoology, or Systematic Natural History, vol. IV, 1803; vol. V, 1804.

GEORGE SHAW.

Anguilla Shaw, IV, 15, 1803; type Anguilla vulgaris Shaw (Muræna anguilla L.).

The name ANGUILLA has been ascribed to Thunberg, but we find no notice of its use as a generic term prior to Shaw.

Vandellius Shaw, IV, 199, 1803.

Needless substitute for LEPIDOPUS Gouan.

Trichopus Shaw, IV, 392, 1803; type Trichopus Pallasi Shaw (Labrus Trichopterus Pallas).

Equivalent to OSPHRONEMUS Lacepède.

Cephalus Shaw, V, 432, 1804; type Diodon mola L. Equivalent to Mola Cuvier. Not Cephalus Plumier.

Trachichthys Shaw, IV, 630, 1803; type Trachichthys Australis Shaw.

Spatularia Shaw, V, 362, 1804; type Spatularia reticulata (Squalus spathula Walbaum).

Synonym of Polyodon Lacepède.

LXI. HERRMANN, Observationes Zoologica, 1804.

JOHANN HERRMANN.

Notistium Herrmann, 305, 1804; type Notistium Gladius Herrmann. Equivalent to Istiophorus Lacepède.

LXII. GIORNA, Mémoire Sur des Poissons d'Espèces Nouvelles et de genres nouveaux: Mémoires de l'Académie Impériale de Torino, XVI, 1803-1808.

MICHEL ESPRIT GIORNA.

Lophotes Giorna, 19, 1805; type Lophotes cepedianus Giorna.

Cœlorhynchus Giorna, 18, 1805; type Cœlorhynchus la ville Giorna.

Trachyrhynchus Giorna, 18, 1805; type (not named) Lepidoleprus Trachyrincus Risso, 1810.

An earlier paper of Giorna is quoted by Dean, Mémoire sur cinq poissons dont deux sont d'espèces nouvelles . . . et les trois autres sont de nouveaux genres: Mém. Acad. Imp. Torino. The date of this paper is variously given. The three genera above noted were not named. Giorna would not give the nomenclature until he heard from Lacepède, to whom he had sent descriptions and drawings. The two species indicated were RAIA GIORNA Lacepède and BALISTES BUNIVA Lacepède.

LXIII. QUENSEL, Forsäk at Narmäre Bestämma och naturligare Uppställa Svensk Arterna af Flunderslagte: Kong. Vet. Akad. Nya Handlung, XXVII, 1806.

C. QUENSEL.

Solea Quensel, XXVII, 44, 203, 1806; type Pleuronectes solea L.

LXIV. DUMÉRIL, Zoologie Analytique, 1806.

André Marie Constant Duméril.

This work furnishes in the Index, pp. 342, 343, Latin equivalents for French vernacular names used by Lacepède, *Hist. Nat. Poiss.*, I, II, 1798, 1800. (Partly examined by us, some of the pages not verified).

Squatina Duméril, 102, 342; type (not named) Squatina angelus Duméril (Squalus squatina L.).

Equivalent to Rhina Klein.

Torpedo Duméril, 102, 343; type (not named) Raja torpedo L. Not Torpedo Forskål. Same as Narcacion Klein. Narcobatis Blainville.

Ovoides (Lacepède) Duméril, 108, 342; type L'Ovoide fascé.

Based on a front view of Tetraodon stellatus L.

Equivalent to Ovoides Cuvier and Ovum Bloch & Schneider.

Apterichthys Duméril, 112, 331; type Muræna cæca L.

Substitute for CÆCILIA Lacepède, preoccupied. A synonym of SPHAGEBRAN-CHUS Bloch.

Bostrichthys Duméril, 120, 332; type Bostrychus sinensis Lacepède. Name a substitute for Bostrychus, preoccupied.

Spheroides (Lacepède) Duméril, 342; type "LE SPHÉROIDE TUBERCULÉ" Lacepède, 1798.

A front view of Tetraodon spengleri Bloch. A synonym of Tetraodon, as restricted by Bleeker.

Macrorhynchus (Lacepède) Dumèril, 342; type "Macrorhynque ar-GENTÉE" Lacepède (SYNGNATHUS ARGENTEUS Osbeck).

A species near Dicrotus prometheoides Bleeker. Probably replaces Dicrotus Günther.

LXV. DUMÉRIL, Dictionnaire des Sciences Naturelles, 1806.

André Marie Constant Duméril.

Torpedo Duméril, pl. 21; type Raja torpedo L.

Not Torpedo Forskål, 1775; replaced by Narcacion Klein or by Narcobatis Blainville.

LXVI. HUMBOLDT, Ueber den Eremophilus und den Astroblepus, zwei neue Fisch-Gattungen: Observationes Zoologicæ, and in Philos. Mag., XXIV, 1806.

ALEXANDER VON HUMBOLDT.

- Eremophilus Humboldt, 17, 329; type Eremophilus mutisii Humboldt.
- Astroblepus Humboldt, 19, 331; type Astroblepus Grixalvii Humboldt.
- LXVII. DUMÉRIL, Dissertation sur les Poissons Cyclostomes, 1808.

 André Marie Constant Duméril.

Ammocœtus Duméril; type Petromyzon planeri L.

The larva of Lampetra fluviatilis (L.) and of Petromyzon marinus L. Preferably retained, under the usual spelling, Ammoccetes, as a designation for larval lampreys. Otherwise replaces Lampetra Gray, 1854; type Petromyzon fluviatilis L.

LXVIII. TILESIUS, Descriptions de quelques Poissons: Krusenstern's Reise um die Welt., Mem. Soc. Nat. Moscow, II, 1809.

W. G. VON TILESIUS.

Not seen by us.

- Ericius Tilesius, 213, 1809; type Ericius (Japonicus Houttuyn). A synonym of Monocentris Bloch & Schneider.
- Hexagrammos (Steller) Tilesius, Actæ Academ. Petropol., II, 335, 1809; type Hexagrammos stelleri Tilesius (Hexagrammos Asper Tilesius).

Often written HEXAGRAMMUS.

LXIX. GEOFFROY SAINT HILAIRE, Poissons du Nil, de la Mer Rouge et de la Méditerranée: in Description de l'Egypte, publée par Napoléon le Grand, Histoire Naturelle, I, 1809-1827.

ÉTIENNE FRANÇOIS GEOFFROY SAINT HILAIRE.

In this huge folio a few species of fishes are described in great detail, with steel engravings. The work is in three parts, published in 1809,

1818, and 1825, respectively, the second and third parts being prepared by Isidore Geoffroy Saint Hilaire.

Polypterus Geoffroy St. Hilaire, I, 1809; type Polypterus bichir St. Hilaire.

LXX. PALLAS, Labraces novum piscium genus Oceani Orientalis: Mem. Acad. Sci. Petersb., II, 1810.

PETER SIMON PALLAS.

Labrax Pallas, II, 382, 1810; type LABRAX LAGOCEPHALUS Pallas.

Not of Klein nor of Cuvier. A synonym of HEXAGRAMMOS Steller.

LXXI. RISSO, Ichthyologie de Nice, 1810.

ANASTASE RISSO.

Cephalopterus Risso, 14; type RAJA GIORNA Lacepède.

Not CEPHALOPTERUS of Geoffroy St. Hilaire, 1809, a genus of birds. Equivalent to Mobula Rafinesque.

Lepidoleprus Risso, 197; type Lepidoleprus trachyrhynchus Risso. A synonym of Trachyrhynchus Giorna.

Tetragonurus Risso, 347; type Tetragonurus cuvieri Risso.

LXXII. RAFINESQUE, Caratteri di Alcuni Nuovi Generi e Nuove Specie di Animale e Piante della Sicilia, April 1, 1810.

Constantine Samuel Rafinesque-Schmaltz (later written simply "Rafinesque").

Carcharias Rafinesque, 10; type CARCHARIAS TAURUS Rafinesque.

The intended type was SQUALUS CARCHARIAS L., but C. TAURUS is the only species actually mentioned. Monotypic. Replaces Odontaspis Agassiz. Not Carcharias Cuvier, 1817.

Dalatias Rafinesque, 10; type DALATIAS NOCTURNUS Rafinesque.

Gray in 1851 restricted Dalatias to D. Sparophagus Rafinesque. Swainson, 1838, formally restricted Dalatias to Dalatias nocturnus, which seems to be a species of Centrophorus Müller & Henle, probably C. Granulosus.

Tetroras Rafinesque, 11; type Tetroras angiova Rafinesque.

A second-hand and erroneous description, possibly referring to CETORHINUS MAXIMUS, but unrecognizable. Monotypic.

Isurus Rafinesque, II; type Isurus oxyrhynchus Rafinesque.
Monotypic. Replaces Oxyrhina Agassiz.

Cerictius Rafinesque, 12; type CERICTIUS MACROURUS Rafinesque.

Apparently imaginary.

Alopias Rafinesque, 12; type Alopias Macrourus Rafinesque (SQUALUS VULPINUS Bonnaterre).

Monotypic.

Heptranchias Rafinesque, 13; type SQUALUS CINEREUS Gmelin.
Monotypic.

Galeus Rafinesque, 13; type Galeus mustelus L.

As restricted by Jordan & Evermann, 1896, after Leach, 1812. Later restricted to Pristiurus melastomus by Garman. Not Galeus Valmont, nor Galeus Cuvier.

Rafinesque describes one new species of GALEUS, G. MELASTOMUS, but refers in the text to GALEUS CATULUS and GALEUS MUSTELUS. Unless GALEUS Valmont holds, in place of PRIONACE, GALEUS becomes a synonym of MUSTELUS Linck.

Hexanchus Rafinesque, 14; type Squalus griseus L.

Monotypic. Replaces Notidanus Cuvier.

Etmopterus Rafinesque, 14; type Etmopterus aculeatus Rafinesque.

Monotypic. Replaces Spinax Cuvier.

Rhina Rafinesque, 14; type SQUALUS SQUATINA L.

Monotypic. Identical with RHINA Klein, and SQUATINA Duméril.

Leiobatus Rafinesque, 16; type Leiobatus panduratus Rafinesque.

Monotypic. A synonym of Rhinobatus Linck. Not Leiobatus Klein.

Dipturus Rafinesque, 16; type RAJA BATIS L.

Monotypic. Identical with RAJA L.

Dasyatis Rafinesque, 16; type Dasyatis Ujo Rafinesque (Raja pastin-ACA L.).

Monotypic. Identical with DASYBATUS Klein and TRYGON Adanson.

Orthragus Rafinesque, 17; type Tetraodon Mola L.

Monotypic. Equivalent to Mola Kælreuter.

Diplanchias Rafinesque, 17; type DIPLANCHIAS NASUS Rafinesque.

Monotypic. Equivalent to Mola.

Typhle Rafinesque, 18; type Typhle HEXAGONUS Rafinesque (SYNGNATHUS TYPHLE L.).

Misspelled Tiphle. Preoccupied by Typhle* Lacepède, 1800, a genus of mammals. Replaced by Typhlinus Rafinesque, 1815, and by Siphonostomus Kaup. Monotypic.

^{*}Under the head of Cæcilia, Lacepède refers to its alleged blindness, a character almost unknown among vertebrates. "Parmi lesquels on ne connoît encore qu'un mammifère, nommé Typhle, et le genre des cartilagineux nommés Gastro-Branches qui aient paru complètement aveugles."

- Siphostoma Rafinesque, 18; type Syngnathus Pelagicus L. Monotypic. A synonym of Syngnathus L. as the latter is now restricted.
- Hippocampus Rafinesque, 18; type Syngnathus Hippocampus L. (Hippocampus Heptagonus Rafinesque).
- Oxyurus Rafinesque, 19; type Oxyurus vermiformis Lacepède. A larva, probably of Conger.
- Scarcina Rafinesque, 20; type SCARCINA ARGYREA Rafinesque. A synonym of LEPIDOPUS Gouan.
- Luvarus Rafinesque, 22; type Luvarus imperialis Rafinesque.

 Monotypic.
- Bothus Rafinesque, 23; type, as restricted, Bothus rumolo Rafinesque (Pleuronectes rhombus L.).

Equivalent to RHOMBUS Klein, of earlier date.

- Corystion Rafinesque, 24; type Corystion Mustazola Rafinesque. Some species of Trachinus L. Monotypic.
- Merluccius Rafinesque, 25; type Gadus Merlucius L. (Merluccius smiridus Rafinesque).

 Monotypic.
- Phycis Rafinesque, 26; type Phycis Punctatus Rafinesque.

Not Phycis Fabricius, 1798, a genus of Butterflies. Equivalent to Phycis Röse, 1793, which is not preoccupied.

- Oxycephas Rafinesque, 31; type Oxycephas scabrus Rafinesque. A species of Trachyrhynchus Giorna, 1805. Monotypic.
- Lepimphis Rafinesque, 33; type Lepimphis Hippuroides Rafinesque (Coryphæna Hippurus L.).

Identical with Coryphæna.

- Symphodus Rafinesque, 41; type Symphodus fulvescens Rafinesque = Lutianus rostratus Bloch = Labrus scina Forskål.

 Replaces Coricus Cuvier.
- Trachurus Rafinesque, 41; type Scomber trachurus L. (Trachurus saurus Rafinesque).

By general usage and by tautonomy.

Tricropterus Rafinesque, 41; type by definition, Scomber carangus Bloch (Scomber hippos L.).

Not separable from CARANX; no species named.

Hypodis Rafinesque, 41; type Scomber GLAUCUS L.

Equivalent to GLAUCUS Klein; not separable from Cæsiomorus Lacepède.

Centracanthus Rafinesque, 42 (misprinted Centracantus); type Centracantus cirrus Rafinesque (Smaris insidiator Cuv. & Val.).

Monotypic; probably a specimen with the dorsal fin torn. This seems to be generically different from Spicara Rafinesque, Smaris Cuvier. Afterwards spelled Centracantha.

Hypacanthus Rafinesque, 43 (misprinted Hypacantus); type "Scomber Aculeatus L."

But there is no such species of Linnæus. Rafinesque elsewhere identifies it with Centronotus vadigo Lacepède, which is the type of Camptogramma Regan, 1903. This name must be replaced by Hypacanthus.

Naucrates Rafinesque, 43; type Naucrates fanfarus Rafinesque (Gasterosteus ductor L.).

Replaces CENTRONOTUS Lacepède, preoccupied.

Notognidion Rafinesque, 46; type Notognidion scirenga Rafinesque. Unidentified. Monotypic.

Spicara Rafinesque, 51; type SPICARA FLEXUOSA Rafinesque (SPARUS SMARIS L.).

Equivalent to SMARIS Cuvier and having priority. Monotypic.

Aylopon Rafinesque, 52; type Labrus anthias L.

A substitute for ANTHIAS Bloch, said to be preoccupied. We do not find it so.

Lopharis Rafinesque, 52; type Perca Lophar Forskål.

Identical with POMATOMUS Lacepède. Monotypic.

Lepterus Rafinesque, 52; type Lepterus fetula Rafinesque (STROM-ATEUS FIATOLA L.).

Identical with STROMATEUS L. Monotypic.

Gonenion Rafinesque, 53; type Gonenion serra Rafinesque (Perca LOPHAR Forskål).

Identical with POMATOMUS Lacepède. Monotypic.

Lepodus Rafinesque, 53; type Lepodus saragus Rafinesque (Sparus Raii Bloch).

Monotypic. Equivalent to Brama Bloch & Schneider, not of Klein. Replaces Brama Cuvier, if Klein's names are eligible.

Tetrapturus Rafinesque, 54; type Tetrapturus belone Rafinesque.

Argyctius Rafinesque, 55; type Argyctius QUADRIMACULATUS Rafinesque.

Equivalent to Trachypterus Gouan.

Tirus Rafinesque, 56; type Tirus marmoratus Rafinesque (Esox synodus L.).

Equivalent to Synodus.

Lucius Rafinesque, 59; type Esox Lucius L. (Lucius vorax Rafinesque).

The author attempts to limit the name Esox to Esox belone L., and its allies, an arrangement not accepted by the International Commission, (Opinion 58).

Sudis Rafinesque, 60; type Sudis Hyalina Rafinesque.

Monotypic.

Sayris Rafinesque, 60; type Sayris recurvirostra Rafinesque (Esox saurus Walbaum).

A needless substitute for Scomberesox.

Cogrus Rafinesque, 62; type Cogrus MACULATUS Rafinesque.

Cogrus is a tenable subgenus of Ophichthus.

Piescephalus Rafinesque, 63; type Piescephalus adherens Rafinesque (Lepadogaster gouani Gouan).

A synonym of Lepadogaster Gouan.

Echelus Rafinesque, 63; type by first restriction (Bleeker, Atlas Ichth., Muræn., p. 30) Echelus punctatus Rafinesque (Muræna Myrus L.).

Identical with MYRUS Kaup, 1856. Restricted later by Jordan & Evermann to species of CONGER, but the earliest arrangement must hold.

- Nettastoma Rafinesque, 66; type Nettastoma Melanura Rafinesque. Monotypic.
- Dalophis Rafinesque, 68; type DALOPHIS SERPA Rafinesque (SPHAGE-BRANCHUS IMBERBIS De la Roche, 1809).

 Equivalent to Cæcula Vahl.

LXXIII. RAFINESQUE, Indice d'Ittiologia Siciliana, May, 1810.

CONSTANTINE SAMUEL RAFINESQUE-SCHMALTZ.

Onus Rafinesque, 12; type Onus RIALI Rafinesque (GADUS MERLUC-CIUS L.).

A needless substitute for MERLUCCIUS.

Merolepis Rafinesque, 25; type Sparus massiliensis Lacepède (Sparus zebra Brünnich).

Probably a genus distinct from Mæna Cuvier.

Gaidropsarus Rafinesque, 11, 51; type Gaidropsarus mustellaris Rafinesque (Gadus mustela L.).

Antedates Motella Cuvier. Monotypic.

Strinsia Rafinesque, 12, 51; type Strinsia tinca Rafinesque. Monotypic.

Symphurus Rafinesque, 13, 52; type Symphurus Nigrescens Rafinesque.

Antedates Aphoristia Kaup, but not Plagusia Browne.

Solea Rafinesque, 14, 52; type Solea Buglossa Rafinesque (Pleuro-NECTES SOLEA L.).

Equivalent to Solea Quensel.

Scophthalmus Rafinesque, 14, 53; type Pleuronectes rhombus L.

As later restricted, identical with BOTHUS Rafinesque and RHOMBUS Klein. Scophthalmus is based on descriptions, Bothus on specimens of the same two species.

Diplodus Rafinesque, 26, 54; type Sparus annularis L.

Equivalent to SARGUS Cuvier and prior, but not prior to SARGUS Klein.

Octonus Rafinesque, 29, 54; type Octonus olosteon Rafinesque (Trigla cataphracta L.).

Monotypic. Equivalent to Peristedion Lacepède.

Cephalepis Rafinesque, 31, 54; type Cephalepis octomaculatus Rafinesque.

A synonym of Regalecus Ascanius. Monotypic.

Myctophum Rafinesque, 35, 56; type Mycтophum Punctatum Rafinesque.

Nerophis Rafinesque, 37, 57; type Syngnathus ophidion L. Monotypic.

Carapus Rafinesque, 37, 57; type Gymnotus acus L.
Prior to Fierasfer Cuvier. Not Carapus Cuvier = Giton Kaup.

Sturio Rafinesque, 41, 58; type Sturio vulgaris Rafinesque (Acipenser sturio L.).

Capriscus Rafinesque, 41, 58; type Capriscus porcus Rafinesque (Balistes capriscus Gmelin, "the third division of Lacepède"). Equivalent to Balistes L.

Chlopsis Rafinesque, 42, 58; type Chlopsis bicolor Rafinesque. Monotypic.

Xypterus Rafinesque, 43, 59; type XYPTERUS IMPERATI Rafinesque.

Apparently a synonym of Regalecus Ascanius. Monotypic.

Pterurus Rafinesque, 43, 59; type Pterurus flexuosus Rafinesque (Sphagebranchus imberbis De la Roche).

Name preoccupied: a synonym of CÆCULA Vahl.

Oxynotus Rafinesque, 45, 60; type SQUALUS CENTRINA L. Prior to CENTRINA Cuvier, 1817.

Sphyrna Rafinesque, 46, 60; type SQUALUS ZYGÆNA L. Prior to ZYGÆNA Cuvier.

Torpedo Rafinesque, 48, 60; type Torpedo ocellata Rafinesque (RAJA TORPEDO L.).

Not Torpedo Forskål.

Mobula Rafinesque, 48, 61; type Mobula Auriculata Rafinesque (RAJA MOBULAR Lacepède).

Same as CEPHALOPTERUS Risso, preoccupied.

Cephaleutherus Rafinesque, 48, 61; type Cephaleutherus Maculatus Rafinesque.

Apparently a deformed RAJA. Monotypic.

Uroxis Rafinesque, 48, 61; type Uroxis ujus Rafinesque (RAJA PASTINACA L.).

Monotypic. Equivalent to DASYATIS Rafinesque.

- Apterurus Rafinesque, 48, 62; type APTERURUS FABRONI Rafinesque. Equivalent to Mobula Rafinesque.
- Oxystomus Rafinesque, 49, 62; type Oxystomus Hyalinus Rafinesque, larva of Ophisurus serpens (L.).

A synonym of OPHISURUS Lacepède.

Helmictis Rafinesque, 49, 62; type HELMICTIS PUNCTATUS Rafinesque, 1810.

Probably a species of CÆCULA. Monotypic.

- Epigonus Rafinesque, 64; type Epigonus Macrophthalmus Rafinesque. Equivalent to Pomatomus Cuvier, not of Lacepède. Monotypic.
- Gonostoma Rafinesque, 64; type Gonostoma denudatum Rafinesque.

 Monotypic.
- Merlangus Rafinesque, 67; type GADUS MERLUCIUS L. A needless substitute for ONUS and MERLUCCIUS.
- LXXIV. STELLER in *Tilesius*: Mem. Acad. Sci., Petersburg, 1811.

 GEORG WILHELM STELLER.
- Myoxocephalus Steller, in *Tilesius*, IV, 273; type Myoxocephalus STELLERI Tilesius.

LXXV. PALLAS, Zoographia Rosso-Asiatica, III, 1811.

PETER SIMON PALLAS.

This important work was printed and partly distributed in 1811, the bulk of the edition being withheld until 1831.

Phalangistes Pallas, 113; type Cottus cataphractus L.

As restricted by Jordan & Evermann. Also written Phalangista. Not Phalangista Cuvier, 1800, a genus of mammals. Equivalent to Agonus Lacepède.

Elæorhoüs Pallas, 122; type Callionymus Baicalensis Pallas. A synonym of Comephorus Lacepède.

Gasteracanthus Pallas, 228; type Gasteracanthus cataphractus Pallas.

Equivalent to GASTEROSTEUS L.

Coracinus Pallas, 256; type Coracinus chalcis Pallas (Sclæna Nigra Bloch).

Equivalent to Corvina Cuvier, 1829. Not Coracinus Gronow, which is DIP-TERODON Cuvier.

Lebius (Steller Ms.) Pallas, 279; type Labrax superciliosus Pallas, "Lebius, Chirus vel Labrax Steller, Mss. Obs. Ichthyol."

These three names are indicated in Steller's unprinted manuscripts as words from which choice could be made.

Chirus (Steller Ms.) Pallas, 279; type LABRAX SUPERCILIOSUS Pallas. Like the preceding synonym of LABRAX or HEXAGRAMMOS.

Plagyodus (Steller Ms.) Pallas, 383; type Plagyodus Steller (Alepisaurus Æsculapius Bean).

Equivalent to Alepisaurus Lowe, 1833, the name used by Steller only in an oblique case, "Plagyodontem" and without specific name.

LXXVI. LEACH, Observations on the genus SQUALUS, 1812.
WILLIAM E. LEACH.

Mustelus Leach, 62; type Squalus mustelus L.

LXXVII. MONTAGU, Wernerian Museum, I, 1812.

GEORGE MONTAGU.

Xipotheca Montagu, I, 82; type XIPOTHECA TETRADENS Montagu = LEPIDOPUS CAUDATUS (Euphrasen).

A synonym of Lepidopus.

LXXVIII. FISCHER, Zoognosia, Tabulis Synopticus Illustrata, Edition III, vol. I, 1813.

GOTTHELF FISCHER.

A series of Analytical Keys, leading to genera only.

Histrio Fischer, 70, 78; type (not named) Lophius histrio L., by tautonomy.

Diagnosis erroneous, by misprint "corpus depressum" instead of "corpus compressum." Has precedence over Pterophryne Gill and Pterophrynoides Gill.

Ogcocephalus Fischer, 70, 78; type not named; evidently by definition, LOPHIUS VESPERTILIO L.

Replaces MALTHE Cuvier.

Orbis (Lacepède) Fischer, 70; no type named.

Said to be like DIODON but "ad minus 4 dentes in maxilla superiore." Evidently a misprint for "2 dentes." It is probably a synonym of Ovoides Cuvier, the presumable type being Tetraodon lineatus L., the "Orbis" of Salviani and Rondelet.

Odontolepis Fischer, 71, 78; no type named.

A flounder with "pinnæ pectorales tenuissimæ aut nullæ, reliquis conjunctis." The type may be assumed as Symphurus nigrescens. A synonym of Symphurus Rafinesque, 1810. Perhaps species of Monochirus or Microchirus were included.

Psilus Fischer, 74.

A substitute for Bostrychus Lacepède, which is preoccupied. Equivalent to Bostrichthys Duméril.

Psiloides Fischer, 74.

A needless substitute for BOSTRYCHOIDES Lacepède.

Typhlotes Fischer, 75.

A substitute for CÆCILIA Lacepède, preoccupied. A synonym of SPHAGEBRAN-CHUS Bloch.

Mustellus Fischer, 78; type (not named) SQUALUS MUSTELUS L. A synonym of Mustelus Linck, not of Valmont.

LXXIX. FISCHER, Recherches Zoologiques: Mémoires de la Société Impériale des Naturalistes de Moscou, IV, second edition, 1813.

Eleginus Fischer, 252; type Gadus Navaga Kælreuter.

Replaces Tilesia Swainson, 1839 (preoccupied) and Pleurogadus Bean, 1885. Not Eleginus Cuv. & Val., 1830, which becomes Eleginops Gill.

LXXX. LEACH, Zoological Miscellany, 1814.

WILLIAM E. LEACH.

Hippocampus Leach, 103; type Syngnathus Hippocampus L. (Hippocampus antiquorum Leach).

Same as HIPPOCAMPUS Rafinesque, 1810.

LXXXI. MITCHILL, Report in Part on the Fishes of New York, 1814.

SAMUEL LATHAM MITCHILL.

Stomodon Mitchill, 7; type Stomodon bilinearis Mitchill. Equivalent to Merluccius Rafinesque.

Morone Mitchill, 18; type Morone Pallida Mitchill (Perca americana Gmelin).

As restricted by Gill, 1860.

Tautoga Mitchill, 23; type Tautoga niger Mitchill (Labrus onitis L.).

Roccus Mitchill, 25; type Roccus striatus Mitchill (Sciena lineata Bloch).

As restricted by Gill.

LXXXII. RAFINESQUE, Descrizione di un Nuovo Genere di Pesce: Specchio delle Scienze, Palermo, 1814.

CONSTANTINE SAMUEL RAFINESQUE.

Leptopus Rafinesque, I, 16; type Leptopus Peregrinus Rafinesque.

Monotypic. Name preoccupied and later changed to Podoleptus Rafinesque, 1815. Apparently a synonym of Lophotes Giorna.

LXXXIII. RAFINESQUE, Descrizione di un Nuovo Genere di Pesce Siciliano: Specchio delle Scienze, II, 1815.

Nemochirus Rafinesque, II, 100, 105; type Nemochirus erythropterus Rafinesque.

Unrecognized.

The following is Rafinesque's account of this fish:

Nemochirus. Corpo lanceolato compressissimo ensiforme, fronte diagonale, bocca dentata, un' ala dorsale longitudinale senza raggi sciolti, ala caudale sciolta, nessun' ala anale, le due ale pettorali filiformi avvicinate e situate sotto la gola al posto delle ventrali.

Nemochirus erythropterus. Corpo argentato, ale rosse, coda lunulata, con un raggio intermedio mucronato sciolto lunghissimo e filiforme, tre macchie fosche da ogni lato del dorso.

Descrizione. Lunghezza totale due palmi, muso ottuso, mascella inferiore più corta con denti acuti, occhi piccoli neri, iride grande argentina con un cerchio rosso esteriore, opercolo doppio: corpo d'un bel colore argenteo, con tre macchie irregolari fosche di ogni lato del dorso, linea laterale dritta, ventre un poco reti-

colato. Ale pettorali rosse lineari-filiformi acute e con un solo raggio, ala dorsale rossa principiando sopra gli occhi e giungendo sino alla coda, della quale è però staccata e con circa 200 raggi molli: coda rossa un poco trifida o quasi lunulata con però il raggio intermedio semplice, sporgente lunghissimo, mentre i laterali sono ramosi con i rami opposti.

We are indebted to Mr. H. M. Scudder for a copy of this rare and forgotten description. If this account is correct it is still unknown to science, though having much in common with STYLEPHORUS CORDATUS Shaw.

LXXXIV. RAFINESQUE, Précis des Découvertes Somiologiques, 1814.

Trisopterus Rafinesque, 16; type Gadus capelanus Lacepède (Gadus minutus L.).

According to Risso the name is synonymous with Morua Risso, and must be older. Equivalent to Brachygadus Gill.

Monochirus Rafinesque; type Monochirus Hispidus Raf.

LXXXV. RAFINESQUE, Analyse de la Nature, ou Tableau de l'Univers et des Corps Organisés "La Nature est mon Guide et Linneus mon maître." Palermo, 1815.

In this work the entire animal and plant kingdoms are classified, with definitions of the families and higher groups and lists of the known genera. Three hundred and seventy-seven genera of fishes are enumerated. Many of these are bare names, without explanation of any sort. Others represent changes of names of genera for reasons not expressed, but apparently because current names were too long, too short, or involved a termination (OIDES, OMORUS) expressing resemblance. The fishes are divided into two subclasses, HOLOBRANCHIA with opercles and gill membranes complete, and ATELOSIA, lacking either opercles or gill membranes.

The Holobranchia are divided into Deripia (Jugulares), Gastripia (Abdominales), Thoraxipia (Thoracices), Apodia (Apodes).

The Ateleosia are divided into Eltropomia (Sturgeons: Sternoptyx, Pegasus) with one opercle and no gill membrane; Chismopnea, with gill-membranes and one opercle (Chimæra, Balistes, Conger, etc.); and Tremapnea, with neither opercles nor gill membranes (eels and sharks).

This classification is singularly inept.

Dactyleptus Rafinesque, 82.

Substitute for MURÆNOIDES Lacepède.

Pholidus Rafinesque, 82.

A synonym of Pholis Scopoli. Substitute for Enchelyopus Gronow.

Pteraclidus Rafinesque, 82.

Substitute for Oligopodus Lacepède. A synonym of Pteraclis Gronow.

Pacamus, 82; nomen nudum.

Ictius, 82, "sp. do."

That is, based on species of the preceding, i. e., PACAMUS.

Dropsarus, 82.

Evidently an emendation of GAIDROPSARUS Rafinesque.

Trisopterus, 82.

Brosme, 82.

Batrichtius, 82.

A substitute for BATRACHOIDES Lacepède.

Ceracantha, 82.

Taunis, 82.

Plagiusa, 83, "sp. do."

That is, species of PLEURONECTES; apparently based on PLEURONECTES PLAGIUSA L., thus equivalent to SYMPHURUS Rafinesque, 1810.

Holacantha, 83.

Substitute for Holacanthus Lacepède.

Pomacantha, 83.

Nasonus, 83.

Substitute for NASO Lacepède.

Alectis, 84.

Substitute for Gallus Lacepède, which is preoccupied, leaving Alectis as valid.

Bostrictis, 84.

Substitute for Bostrychus Lacepède: a synonym of Bostrichthys Dumèril, 1806.

Pterops, 84, 90.

Substitute for BOSTRYCHOIDES Lacepède.

Tasica, 84.

Nemipus, 84.

Cephalepis, 84.

Gymnurus, 84.

Substitute for Tænioides Lacepède.

Polipturus, 84.

Substitute for Scomberomorus Lacepède.

Orcynus, 84.

Substitute for Scomberoides Lacepède.

Baillonus, 85.

Substitute for Cæsiomorus Lacepède.

Lepicantha, 85.

Apparently shortened from LEPISACANTHUS Lacepède.

Gastrogonus, 85.

Cephimmus, 85.

Substitute for GYMNOCEPHALUS Bloch.

Lepipterus, 85.

Panotus, 85.

Substitute for Tænionorus Lacepède.

Aylopon, 85.

Substitute for ANTHIAS Bloch.

Lopharis, 85.

Cephacandia, 85.

Substitute for CEPHALACANTHUS Lacepède.

"Gonurus Lac.," 85.

Unexplained; no such name appears in Lacepède.

Lepomus, 86.

Pomagonus, 86.

Mesopodus, 86.

Acaramus, 86.

Clodipterus, 86, also on 88.

Substitute for CHEILODIPTERUS Lacepède.

Macrolepis, 86, "sp. do."

That is, of Apogon Lacepède.

Guebucus, 86.

Micropodus, 86.

Substitute for CHEILIO Lacepède.

Megaphalus, 86.

Substitute for Gobiesox Lacepède.

Pomacanthis, 86.

Oxima, 86.

Equetus, 86.

Substitute for Eques Bloch.

Branchiostegus, 86.

Substitute for Coryphænoides Lacepède, not of Gunner. Replaces LATILUS Cuv. & Val., 1830.

"Eleotris Gr., Gobiomorus Lacepède," 86.

Epiphthalmus, 86.

Substitute for Gobiomoroides Lacepède.

Lepimphis, 86.

Plecopodus, 87.

Substitute for Gobioides Lacepède.

Piescephalus, 87.

Lumpus, 87, "sp. do."

That is, of Cyclopterus.

Liparius, 87, "sp. do."

That is, of Cyclopterus.

Percis Scopoli, 87.

Said to be same as ASPIDOPHOROIDES Lacepède.

Aygula, 87.

Substitute for Coris Lacepède.

Octonus, 88.

Gasterodon, 88.

Xysterus, 88.

For Xyster Lacepède.

Meneus, 88.

For Mene Lacepède.

Buronus, 88.

For Buro Lacepède.

Thrissa, 88.

Substitute for CLUPANODON Lacepède.

Megalops, 88.

Prinodon, 88.

Substitute for CYPRINODON Lacepède.

Maturacus, 88.

Edomus, 88.

Gonipus, 88.

Myxonum, 88.

Substitute for Mugiloides Lacepède.

Trichonotus, 88.

Substitute for Mugilomorus Lacepède.

Soranus, 88.

Cordorinus, 89.

Substitute for Corydoras Lacepède.

Amiatus, 89.

Substitute for AMIA L. AMIATUS becomes eligible if AMIA Gronow be accepted instead of APOGON.

Sayris, 89.

Substitute for Scombresox Lacepède.

Ramphistoma, 89; "Raf. Belone Gronow."

The word Belone was not used in a generic sense by Gronow, but first by Cuvier in 1817. Rafinesque apparently refers to synonymy of the species as quoted from Gronow by Lacepède.* This reference does not seem to justify the substitution of RAMPHISTOMA for Belone.

Odumphus, 89.

Onopionus, 89.

Guaris, 90.

Typhlinus, 90, "sp. do."

That is, of SYNGNATHUS, earlier called TYPHLE by Rafinesque, which name is used by Lacepède for a "blind" genus of mammals, but without mention of type.

Phyllophorus, 90.

Homolenus, 90.

This and the two preceding are placed in the same family as SYNGNATHUS.

Goniodermus, 90, "sp. do."

Of OSTRACION.

Cephalopsis, 90, "sp. do."

Of Diodon.

Orbidus, 90.

For "Spheroide" of Lacepède.

Oonidus, 90.

For "Ovoide" of Lacepède.

Tangus, 91.

Said to be the same as "HEPTACA" Rafinesque.

Piratia, 91.

Opictus, 91.

^{*}In the synonymy of Esox belone Lacepède has this quotation:

[&]quot;Belone et raphis, id est acus. Petri Artedi Synonymia Piscium etc., auctore J. G. Schneider, etc.

[&]quot;Gronov. Mus. 1, n. 39. Zooph., p. 117, n. 362."

In a hasty reading, Rafinesque must have ascribed both sentences to Gronow, who apparently did not use the name BELONE.

Ictiopogon, 91.

Substitute for Bostrychus Lacepède, which is preoccupied.

Dameus, 91.

Neleus, 91.

Nemochirus, 91.

Dipinotus, 91.

Symphocles, 91,

This and the preceding are placed near TRICHIURUS.

Melanictis, 92.

Epimonus, 92, "sp. do."

That is, of Balistes, doubtless intended for Monacanthus.

Lophidius, 92.

Variant of LOPHIUS.

Chironectes, "R", 92, "sp. do."

Of LOPHIUS.

Conomus, 92, "sp. do."

Of LOPHIUS.

Branderius, 93.

Substitute for CÆCILIA Lacepède, a synonym of SPHAGEBRANCHUS Bloch.

Anopsus, 93.

Substitute for MURÆNOBLENNA Lacepède.

Gymnopsis, 93.

Substitute for GYMNOMURÆNA Lacepède.

Helmictis, 93.

Rincoxis, 93.

Zebricium, 93.

Pterurus, 93.

Sphyrnias, 93.

Variant of SPHYRNA Rafinesque.

Platopterus, 93.

Substitute for RAJA L.

Epinotus, 93.

Lymnea, 93.

Podoleptus, 93.

Substitute for LEPTOPUS Rafinesque, 1814. A synonym of LOPHOTES Giorna.

Megaderus, 93.

Substitute for ECHIDNA Forster.

Ictætus, 93.

Sephenia, 93.

Megabatus, 93.

Apturus, 93.

Lampreda, 94, "sp. do."

Of PETROMYZON.

Pricus, 94, "sp. do."

Of Petromyzon. This and the preceding doubtless equivalent to Ammocomes Duméril and Lampetra Gray, the former based on the larval state of lampreys.

LXXXVI. CUVIER, Observations et Recherches Critiques sur differens Poissons de la Méditerrannée, et à leur Occasion sur des Poissons d'autres mers plus ou moins Liés avec Eux: Mémoires du Museum d'Histoire Naturelle, Paris, I, 1815.

GEORGES LÉOPOLD CHRÉTIEN FRÉDÉRIC DAGOBERT CUVIER.

Glossodus Cuvier, I, 1815; type Argentina glossodonta Forskål. Same as Albula Gronow, Butyrinus Lacepède.

Fierasfer Cuvier, I, 119, 312, 359, 1815; type OPHIDION IMBERBE L. Same as CARAPUS Rafinesque. (Name in French only; dates from Oken, 1817.)

Xyrichthys Cuvier, I, 317, 329, 355, 1815; type Xyrichthys cultratus Cuvier (Coryphæna novacula L.).

Epibulus Cuvier, I, 111; type Sparus insidiator Pallas.

Smaris Cuvier, I, 111; type Sparus smaris L.

Myletes Cuvier, I, 115; type Myletes rhomboidalis Cuv.

Saurus Cuvier, I, 115; type Salmo Saurus L.

Chromis Cuvier, 393; type Sparus chromis L.

Monotypic. Same as HELIASES Cuvier, 1817.

Crenilabrus Cuvier, 357; type Labrus Lapina Forskål (Les Crénilabres).

Bonaparte, in 1839, named as type C. PAVO, which is the same as C. LAPINA. Name in French only, dates from Oken, 1817.

Corycus Cuvier, 359; type (not otherwise named) LUTIANUS ROSTRATUS Bloch.

Based on "les deux derniers Lutjans de M. Risso." Called Coricus by Cuvier in 1817. A synonym of Symphodus Rafinesque.

Tetragonopterus Cuvier, I, 114; type T. ARGENTEUS Cuvier.

Les Serrans Cuvier.

This is not a scientific name. Reference is made to ANTHIAS SACER Bloch.

Diacope Cuvier, 360; type Holocentrus Bengalensis Bloch.

Name preoccupied, replaced by GENYOROGE Cantor, 1850.

Diagramma Cuvier, 360; type Anthias diagramma Bloch.

A synonym of Plectorhinchus Lacepède.

Scolopsis Cuvier, 361; type the Curite of Russell (Scolopsis curite Cuvier).

Les Priacanthes Cuvier, 361; type Anthias Macrophthalmus Bloch. First called Priacanthus by Cuvier in 1817.

Les Pristipomes Cuvier, 361; type LUTIANUS HASTA Bloch.

Called Pristipomus by Oken in 1817. A synonym of Pomadasys Lacepède.

Julis Cuvier, 362; type LABRUS JULIS L.

By tautonomy and by first restriction.

Boops Cuvier, 453; type Sparus Boops L.

By tautonomy. Later called Box Cuvier.

The genus Sparus L. is divided into Sargues, Sparus sargus L.; Daurades, Sparus aurata L.; and Pagres, Sparus pagrus L. No Latin names are indicated and no type assigned to Sparus L. "Les Canthères" is a name assigned (p. 485) to Sparus cantharus L.

Dentex Cuvier, 486; type Sparus dentex L.

By tautonomy,

Les Melettes, 457; type Clupea brünnichi Gmelin.

This group is equivalent to ENGRAULIS Cuvier, 1817. No Latin name is assigned.

On page 14 of this volume the name SCIENA UMBRA L., originally based on two species (the "Maigre" and the "Corb," confounded by Linnæus), is definitely restricted to the first of these, the CHEILODIPTERUS AQUILA of Lacepède. This species then becomes the type of SCIENA, replacing ARGYROSOMUS DE LA PYLAIE and PSEUDOSCIENA Bleeker. The "Corb" remains as CORVINA NIGRA (Bloch).

LXXXVII. BLAINVILLE, Prodrome d'Une Nouvelle Distribution Systématique du Règne Animal: Bullétin de la Société Philomatique, 1816.

HENRI MARIE DUCROTAY DE BLAINVILLE.

Descriptions of the genera indicated appeared also in the Fauna Française, 1820-1830.

The pagination as here given is taken from Garman, *Plagiostomia*, 1913.

Trygonobatus Blainville, 112; type RAIA PASTINACA L. Equivalent to DASYATIS Rafinesque.

Aetöbatus Blainville, 112; type Raja narinari Euphrasen.

As restricted by Müller & Henle, 1838; not as restricted by Cantor, 1850. The latter arrangement would accord better with Blainville's obvious purpose of making RAJA AQUILA his "AETOBATIS VULGARIS," the best known of these "raies aigles," his type. The first restriction, however, has the sanction of Agassiz, Günther, and Gill.

Dicerobatus Blainville, 116; type RAJA MOBULAR Lacepède.

A synonym of Mobula Rafinesque. Monotypic.

Leiobatus Blainville, 121, "Raies lisses"; type Leiobatus sloani Blainville.-

A species of Urotrygon. Not Leiobatus Rafinesque, which is Rhinobatus; nor Leiobatus Klein, a synonym of Raja.

Narcobatus Blainville, 121; type RAJA TORPEDO L.

Scylliorhinus Blainville, 121, "Squales roussettes"; type Squalus canicula Lacepède.

As restricted. Prior to SCYLLIUM Cuvier.

Cestrorhinus Blainville, 121; type SQUALUS ZYGÆNA L.

A synonym of CESTRACION Klein and SPHYRNA Rafinesque.

Monopterhinus Blainville, 121, "squales à une seule pinnule dorsale"; type Squalus griseus Gmelin.

A synonym of HEXANCHUS Rafinesque. Monotypic. .

Acanthorhinus Blainville, 121, "squales épineux"; type Squalus acanthias Lacepède.

Equivalent to SQUALUS L. as restricted by Rafinesque and by Gill.

Heterodontus Blainville, 121; type Squalus Philippi Lacepède.

The name seems sufficiently different from Heterodon, a genus of snakes of prior date, although from identical Greek roots. Otherwise would stand as Centracton Gray. Monotypic.

Cetorhinus Blainville, 121; type SQUALUS MAXIMUS Gunner.

Galeorhinus Blainville, 121, "Squales demi-Requins"; type SQUALUS CANIS L.

As restricted by Gill, 1864; SQUALUS MUSTELUS as restricted by Garman, 1913. The former arrangement must hold, replacing EUGALEUS Gill.

Carcharhinus Blainville, 121; type SQUALUS COMMERSONIANUS Blainville.

As restricted by authors.

Echinorhinus Blainville, 121, "Squales bouclés"; type Squalus spinosus Gmelin.

Monotypic.

Trygon Adanson in Cuvier, 136; type RAJA PASTINACA L.

This name, quoted from Adanson's Manuscript Cours d'Histoire Naturelle, in 1772, has been adopted by several authors. Trycon appears also as a new genus (equivalent to Tæniura) of Geoffroy St. Hilaire in the Histoire d'Egypte, with the date of 1825. The name is certainly later than Dasybatus of Klein, with the same type, and also later than Dasyatis Rafinesque.

Callorhynchus (Gronow) Cuvier, 140; type Chimæra callorhynchus I.

Monacanthus (Cuvier) Oken, 152, ("Les Monacanthes" Cuvier); type Balistes Chinensis Bloch.

Alutera (Cuvier) Oken, 153, ("Les Alutères" Cuvier); type Balistes Monoceros L.

Triacanthus (Cuvier) Oken, 153, ("Les Triacanthes" Cuvier); type
BALISTES BIACULEATUS Bloch.
Monotypic.

Hippocampus Cuvier, 157; type Syngnathus Hippocampus L. Equivalent to Hippocampus Rafinesque.

Characinus Cuvier, 164; no type named. Equivalent to Characini L., Charax Gronow.

Curimatus (Cuvier) Oken, 165, ("Les Curimates" Cuvier); type Salmo EDENTULUS Bloch (Salmo CYPRINOIDES L.).

Name latinized as Curimatus Oken, 1182, as Curimata by Cloquet. Equivalent to Curimata Walbaum, 1792.

Anostomus (Gronow) Cuvier, 165; type Salmo anostomus L. Called Leporinus by Cuvier & Valenciennes.

Piabucus (Cuvier) Oken, 166, ("Les Piabuques" Cuvier); type SALMO ARGENTINUS Bloch.

Latinized as PIABUCUS by Oken, as PIABUCA by Müller & Tröschel.

Citharinus Cuvier, 168; type "LE SERRASALME CITHARINE" Geoffroy. CYTHARINUS Oken, 1182, ("Les Citharines" Cuvier, 1815, I. 115).

Saurus Cuvier, 169; type Salmo saurus L.

Scopelus Cuvier, 169; type GASTEROPELECUS HUMBOLDTI Risso. Equivalent to Myctophum Rafinesque, 1810.

Aulopus Cuvier, 170; type Salmo filamentosus Bloch.

Engraulis Cuvier, 174; type Clupea encrasicholus L.

Thrissa Cuvier, 176; type Clupea setirostris Broussonet.

Equivalent to Mystus Lacepède, preoccupied. Not Thrissa Rafinesque. Later spelled Thryssa by Cuvier.

This genus or subgenus may receive a new name, Thrissocles Jordan & Evermann, type Cluppa setirostris Broussonet. It is distinguished from Menidia Browne or Anchoviella Fowler, by the greatly prolonged maxillary.

Pristigaster Cuvier, 176; type not named.

Later fixed as Pristigaster Cayanus Cuvier.

Chirocentrus Cuvier, 178; type Esox chirocentrus L. (Clupea dorab Gmelin).

Sudis Cuvier, 180; type (not named) Sudis GIGAS Cuvier.

Equivalent to Arapaima Müller and Troschel, 1846 (Vastres Valenciennes, 1846).

Not Sudis Rafinesque, 1810.

Galaxias Cuvier, 183; type Esox TRUTTACEUS Cuvier.
Monotypic.

Microstoma Cuvier, 184; type Gasteropelecus microstomus Risso. Monotypic.

Stomias Cuvier, 184; type Esox BOA Risso.

Monotypic.

Salanx Cuvier, 185; type (not named) SALANX REEVESI Cuv. & Val. (ALBULA CHINENSIS Osbeck).

Monotypic. Synonym of Albula Osbeck, if the latter name is regarded as eligible.

Belone Cuvier, 185; type Esox belone L.

Hemi-Ramphus Cuvier, 186; type Esox brasiliensis L.

Barbus Cuvier; 192; type Cyprinus barbus L.

Gobio Cuvier, 193; type CYPRINUS GOBIO L.

Not Gobio of Klein, which is identical with Gobius L. If Klein's names are accepted, Gobio Cuvier, based on the common gudgeon of Europe, Cyprinus cobio L., must receive a new name.

Tinca Cuvier, 193; type CYPRINUS TINCA L.

Cirrhinus (Cuvier) Oken, 193, ("Les Cirrhines" Cuvier); type CYPRINUS CIRRHOSUS Bloch.

The name is spelled CIRRHINA by Valenciennes.

Abramis Cuvier, 194; type Cyprinus brama L.

Equivalent to Brama Klein, not of Cuvier.

Labeo Cuvier, 194; type Cyprinus niloticus (Forskål) Geoffroy. Not Labeo Bowdich, 1825.

Leuciscus (Klein) Cuvier, 194; type Cyprinus Leuciscus (L.) Bloch. Identical with Leuciscus Klein.

Lebia (Cuvier) Oken, 199, ("Les Lebias" Cuvier), Oken, *Isis*, 1183; type Cyprinodon variegatus Lacepède.

Monotypic. Identical with Cyprinodon Lacepède, 1803. Written Lebias by Cuvier.

Schilbe (Cuvier) Oken, 202, ("Les Schilbe" Cuvier), Oken, Isis, 1182; type Silurus mystus Hasselquist.

Synodontis Cuvier, 203; type PIMELODUS SYNODONTIS Geoffroy.

Bagre (Cuvier) Oken, 204, ("Les Bagres" Cuvier), Oken, Isis, 1182; type SILURUS BAGRE L.

By tautonomy. Latinized as Bagrus by Valenciennes. This generic name must replace Felichthys Swainson and Ailurichthys Baird, for the Gaff-topsail Cat-fish Felichthys Marinus (L), of American waters, unless the earlier name Bagre of Catesby, applied to another genus, be deemed eligible. The name Bagrus, transferred by Cuvier & Valenciennes to another part of the same group of "Bagres," may be replaced by Porcus Geoffroy, 1817, as Bagrus is only a variant spelling of Bagre.

Morrhua (Cuvier) Oken, ("Les Morues"), 212, 1182; type GADUS MORRHUA L.

Same as GADUS L.

Merlangus (Cuvier) Oken, ("Les Merlans"), 213, 1182; type GADUS MERLANGUS L.

Not Merlangus Rafinesque, 1810.

Lota (Cuvier), ("Les Lottes") Oken, 215, 1182; type Gadus lota Bloch.

By tautonomy.

Mustela (Cuvier), ("Les Mustèles") Oken, 215, 1182; type Gadus Mustela L.

Preoccupied in Mammals: replaced by Motella Cuvier, 1829. Synonym of Gaidropsarus Raf.

Brosme (Cuvier), ("Les Brosmes") Oken, 216, 1182; type Gadus Brosme Gmelin.

Called Brosmius by Cuvier, 1829.

Raniceps (Cuvier) Oken, 217, ("Les Raniceps" Cuvier), Oken, 1182; type GADUS RANINUS Müller.

Platessa Cuvier, 220; type Pleuronectes platessa L. Equivalent to Pleuronectes as restricted by Fleming.

Hippoglossus Cuvier, 221; type Pleuronectes Hippoglossus L.

Rhombus Cuvier, 222; type Pleuronectes Rhombus Cuvier.

Equivalent to Rhombus Klein, not of Lacepède. Name used in Mollusks, Rhombus Da Costa, 1776. Same as Bothus Rafinesque.

Solea Cuvier, 223; type Pleuronectes solea L. Equivalent to Solea Quensel and Solea Rafinesque.

Monochirus (Cuvier) Oken, 223, ("Les Monochires" Cuvier), Monochirus Oken, 1182; type Pleuronectes microchirus De la Roche.

Monotypic. Equivalent to Rafinesque.

Plagusia (Browne) Cuvier, 224; type Pleuronectes Plagusia L. Equivalent to Plagusia Browne, not of Latreille, 1806, a genus of Crustaceans.

Lumpus (Cuvier) Oken, 226, ("Les Lumps" Cuvier) Oken, 1182; type Cyclopterus Lumpus L.

Equivalent to Cyclopterus L.

Conger (Cuvier) Oken, 231, ("Les Congres" Cuvier), Oken, 1182; type
Muræna conger L.

Equivalent to Conger Houttuyn.

Alabes (Cuvier) Oken, 235, ("Les Alabes" Cuvier), Oken, 1182; type (not named) CHEILOBRANCHUS DORSALIS Richardson.

Said to be identical with CHEILOBRANCHUS Richardson, 1848, which it replaces.

Carapus Cuvier, 237; type Gymnotus macrourus Bloch.

Not Carapus Rafinesque, 1810. The name is written Carapo by Oken. Replaced by Giton Kaup.

Fierasfer (Cuvier) Oken, 239, ("Les Fierasfers" Cuvier) Oken, 1182; type Ophidium imberbe L.

Equivalent to CARAPUS Rafinesque, 1810. Monotypic.

Lophotes (Giorna) Cuvier, 243, ("Les Lophotes" Cuvier), the name written Lophotus by Oken, 1182; type "le Lophote Lacepède" Giorna (Lophotes cepedianus).

Monotypic.

Clinus Cuvier, 251; type BLENNIUS SUPERCILIOSUS L.

Pholis (Artedi) Cuvier, 251; type Blennius Pholis Bloch. Not Pholis Gronow.

Salarias Cuvier, 251; type Salarias QUADRIPENNIS Cuvier.

Opistognathus (Cuvier) Oken, 252, ("Les Opisthognathes" Cuvier),
Oken, 1182; type Opisthognathus sonnerati Cuvier.
Monotypic.

Sillago Cuvier, 258; type SILLAGO ACUTA Cuvier.

Julis Cuvier, 261; type Labrus Julis L.

This name has been unfortunately transferred by later writers to a great group of the tropical seas, Thalassoma Swainson.

Crenilabrus Cuvier, 262, ("Les Crenilabres" Cuvier), Oken, 1182; type LABRUS LAPINA Forskål.

Valenciennes makes the type LABRUS PAVO Risso; but that species is not mentioned by Cuvier, although identical with L. LAPINA.

Bonaparte, in 1839, named as type C. PAVO, which is the same as C. LAPINA. In 1839, just previous, Swainson observes: "M. Cuvier having expressly stated

that the type of his genus CRENILABRUS is the LUTJANUS VERRES of Bloch, I have so retained it, placing all the others under the subgenus CYNÆDUS."

L. VERRES is identical with the type of BODIANUS Bloch. We find no such statement in Cuvier's writings, and L. VERRES is ninth of his original species. CYNÆDUS Swainson, as restricted by Bonaparte, is identical with CTENOLABRUS Cuv. & Val.

In the Fauna Italica, 156, 1839, Bonaparte assigned types to certain genera of Labroid fishes. Labrus guttatus Bloch was indicated as type of Hemiulis Swainson; Labrus vetulus Bloch is considered as type of Labrus L. This name, VETULUS, was not used by Linnæus, but it is a synonym of LABRUS BIMACULATUS L. and LABRUS MIXTUS L. LABRUS BIMACULATUS may thus be regarded as the type of LABRUS. LABRUS RUPESTRIS Bloch is indicated as type of CYNÆDUS Swainson. This becomes a synonym of CTENOLABRUS Cuv. & Val., of a little earlier date in 1839. LABRUS PAVO of authors, not of Linnæus, is recognized by Bonaparte as type of CRENILABRUS. This species is not named by Cuvier, but it is identical with LABRUS LAPINA Forskål, a species included by Cuvier. In Swain's excellent review of Swainson (1882) the type of each genus is indicated. The type of Hemiulis (AURATUS) assigned by Swain is a species of CHELLIO Lacepède. The type of CYNÆDUS IS C. TINCA = C. DODERLEINI JOrdan, not LABRUS TINCA L., a species of CRENILABRUS. Bonaparte's selection of types has, however, priority over Swain's. Bonaparte and Swainson recognize LABRUS JULIS L. as type of JULIS. The same type, as LABRUS PAVO Hasselquist, is assigned to CHLORICHTHYS Swainson by Bonaparte. Swain makes the latter a synonym of Thalassoma Swainson. Bonaparte, 1846, selected L. Julis L. as type of Ichthycallus Swainson, reducing both CHLORICHTHYS and ICHTHYCALLUS to the synonymy of Julis.

Coricus Cuvier, 263; type Lutianus virescens Risso (L. rostratus Bloch).

Equivalent to Symphodus Rafinesque.

Epibulus Cuvier, 264; type Sparus insidiator Pallas. Monotypic.

Novacula Cuvier, 265; type Coryphæna novacula L.

By tautonomy. Afterwards restricted by Cuvier & Valenciennes to Cory-PHÆNA PENTADACTYLA Lacepède, the genus HEMIPTERONOTUS Lacepède.

A synonym of XYRICHTHYS Cuvier, 1815.

Chromis (Cuvier) Oken, 266, ("Les Chromis" Cuvier), Oken, 1182; type Sparus chromis Lacepède.

Not Cromis Browne, 1770, nor Chromis Cuvier, 1815. Called Heliases by Cuvier & Valenciennes.

Plesiops (Cuvier) Oken, 266; type not named.

Afterwards described as Plesiops nigricans Rüppell. Equivalent to Pharopteryx Rüppell, 1828.

Smaris Cuvier, 269; type Sparus smaris L.

A synonym of SPICARA Rafinesque.

Boops Cuvier, 270; type Sparus Boops L.
Later called Box Cuv. & Val.

Sargus Cuvier, 272; type Sparus sargus L.

Equivalent to SARGUS Klein and DIPLODUS Rafinesque.

Aurata (Cuvier) Oken, 272, ("Les Daurades" Cuvier), Oken, 1183; type Sparus aurata L.

Equivalent to Sparus L., as restricted by Fleming. Later called Chrysophrys by Cuvier.

Pagrus Cuvier, 272; type Sparus argenteus Bloch & Schneider (Sparus pagrus L.).

Not PAGRUS Plumier.

Dentex Cuvier, 273; type Sparus dentex L.

Diacope Cuvier, 275; type DIACOPE SEBÆ Cuvier.

Name preoccupied in butterflies (DIACOPE Hübner, 1816); replaced by GEN-YOROGE Cantor, 1850. Equivalent to NAQUA Forskål, 1775, a name doubtfully eligible.

Serranus Cuvier, 276, ("Perche de mer ou serran"); type PERCA CABRILLA L. ("le Serran proprement dit").

Serranus cabrilla is usually assumed as the type of the genus Serranus, and therefore of the family Serranidæ. But no species of the genus as thus restricted is mentioned by Cuvier by scientific name. Cuvier, however, remarks: "La Méditerranée en produit beaucoup dont les plus communs s'y confondent sous les noms vulgaires de Perche de Mer, de Serran, etc." This refers to Serranus cabrilla and Serranus scriba. The first of these may be retained as type, following general custom, although its scientific name is not mentioned. Otherwise Holocentrus gigas Bloch & Schneider, which is explicitly mentioned, must be taken, in which case Serranus disappears, as a synonym of Epinephelus Bloch, and the name Serranellus Jordan & Eigenmann, a sub-generic term for Serranus scriba, would stand for the genus, as in Fowler's arrangement (Proc. Ac. Nat. Sci. Phila., 1907, 266).

- Plectropomus (Cuvier) Oken, 277, ("Les Plectropomes" Cuvier), PLECTROPOMUS Oken, 1182, PLECTROPOMA of Cuv. & Val.; type as restricted BODIANUS MACULATUS Bloch.
- Cantharus Cuvier, 278; type Sparus cantharus L. ("Les Canthares," 1815.)

Name preoccupied; replaced by Spondyllosoma Cantor, 1850.

Pristipomus (Cuvier) Oken, 279, ("Les Pristipomes" Cuvier), Oken, 1182, (Pristipoma of Cuvier & Valenciennes); type Lutjanus Hasta Bloch.

Equivalent to Pomadasys Lacepède.

Scolopsis Cuvier, 280; type "le Kurite, Russell" (Scolopsides kurita Cuv. & Val.).

Called Scolopsides by Cuvier.

Diagramma (Cuvier) Oken, 280, ("Les Diagrammes" Cuvier), Oken, 1183; type Anthias diagramma Bloch.

Equivalent to Plectorhynchus Lacepède.

- Priacanthus (Cuvier) Oken, 281, ("Les Priacanthes" Cuvier), Oken, 1183; type Anthias Macrophthalmus Bloch.
 - Equivalent to ABUHAMRUR Forskål, a name doubtfully eligible.
- Polyprion (Cuvier) Oken, 282, ("Les Polyprions" Cuvier), Oken, 1183; type Amphiprion americanus Bloch & Schneider.
- Acerina Cuvier, 283; type Perca Acerina Cuvier (Perca Cernua L.). Called Cernua by Schæfer and by Fleming, Acerina by Güldenstadt, Percis by Klein, and Gymnocephalus by Bloch.
- Stellifer (Cuvier) Oken, 283, ("Les Stellifères" Cuvier), STELLIFER Oken, 1182; type Bodianus stellifer Bloch.

 Monotypic.
- Pterois (Cuvier) Oken, 286, ("Les Pterois" Cuvier), Oken, 1183; type Scorpæna volitans Bloch.
 - Equivalent to PSEUDOPTERUS Klein, which may not be eligible.
- Paralepis Cuvier, 289; type Coregonus paralepis Risso Ms., Para-LEPIS COREGONOIDES Risso.

 Monotypic.
- Prochilus Cuvier, 294; type Sciena Macrolepidota Bloch.
- Name preoccupied in mammals by Prochilus Illiger, 1811. Replaced by Dor-MITATOR Gill.
- Sander (Cuvier) Oken, 294, ("Les Sandres" Cuvier), SANDER Oken, 1182; type PERCA LUCIOPERCA L.
- Terapon Cuvier, 295; type Holocentrus servus Bloch.
- Error for Therapon. Equivalent to DJABUB Forskål, which is doubtfully eligible.
- Zingel (Cuvier) Oken, 296, ("Les Cingles" Cuvier), ZINGEL Oken, 1182; type PERCA ZINGEL L., ASPERULUS Schæfer.
- Umbrina Cuvier, 297; type Sciæna cirrhosa L.
- Otolithes (Cuvier) Oken, 299, ("Les Otolithes" Cuvier), OTOLITHES Oken, 1182; called OTOLITHUS by Cuvier & Valenciennes; type JOHNIUS RUBER Bloch & Schneider.
- Anclyodon (Cuvier) Oken, 299, ("Les Ancylodons" Cuvier), Oken, 1182; type Lonchurus ancylodon Bloch & Schneider.
- Monotypic. Preoccupied; replaced by Macrodon Schinz; Sagenichthys Berg, 1895.
- Antennarius (Commerson) Cuvier, 310, "Les Chironectes (Antennarius Commerson)" Cuvier; type Lophius commersonianus Lacepède, Antennarius antenna tricorne Commerson, in Lacepède.
 - Afterwards called Chironectes by Cuvier, the name preoccupied.

Malthe Cuvier, 311; type Lophius vespertilio L. Equivalent to Ogcocephalus Fischer, 1813.

Thynnus Cuvier, 313; type Scomber thynnus L.

Not Thynnus Browne. The name Thynnus Cuvier is preoccupied, and has been replaced by Thunnus South and later by Albacora Jordan.

Orcynus Cuvier, 314; type Scomber germon Lacepède (Scomber Alalonga Gmelin).

Name preoccupied by ORCYNUS Rafinesque, 1810, and replaced by GERMO Jordan.

Citula Cuvier, 315; type ("l'espèce est nouvelle") Sclæna armata Forskål.

Seriola Cuvier, 315; type Caranx dumerili Risso.

Nomeus Cuvier, 315; type Gobius gronovii Gmelin. Monotypic.

Vomer Cuvier, 316; type Vomer browni Cuvier.

Equivalent to RHOMBOIDA Browne, 1789, which is probably not eligible.

Spinachia Cuvier, 320; type Gasterosteus spinachia L. Monotypic.

Lichia Cuvier, 321; type Scomber amia L.

Blepharis Cuvier, 322; type Zeus ciliaris Bloch.

Monotypic; name preoccupied, replaced by Blepharichthys Gill. A synonym of Alectis Rafinesque.

Equula Cuvier, 323; type Centrogaster equula Gmelin.

A synonym of LEIOGNATHUS Lacepède.

Atropus (Cuvier) Oken, 324, ("Les Atropus" Cuvier), Oken, 1182; type Brama atropus Bloch & Schneider.

Monotypic. Not separable from CITULA.

Oligopodes (Risso) Cuvier, 328, ("Les Leptopodes Cuvier, OLIGOPODES Risso"); type "l'Oligopode noir, Risso."

Described by Risso, 1826, as OLIGOPUS NIGER, apparently a species of PTERACLIS. Cuvier distinguishes PTERACLIS as "Les Oligopodes" and OLIGOPODES as "Les Leptopodes."

Chelmon Cuvier, 334; type CHÆTODON ROSTRATUS Bloch.

Platax Cuvier, 334; type CHÆTODON TEIRA Bloch.

Heniochus Cuvier, 335; type Chætodon Macrolepidotus Bloch.

Ephippus Cuvier, 335; type CHÆTODON ORBIS Bloch, as restricted by Cuv. & Val., 1831.

Toxotes Cuvier, 338; type LABRUS JACULATOR Bloch & Schneider.

Monotypic.

- Anabas Cuvier, 339; type Perca scandens Daldorf. Monotypic.
- Fiatola Cuvier, 342; type Stromateus fiatola L. Equivalent to Stromateus L.
- Seserinus (Cuvier) Oken, 342, ("Les Seserinus" Cuvier); type "Seserinus Rondelet" (Seserinus rondeleti Cuvier).

This is apparently a young STROMATEUS, MICROCHIRUS (Bonelli).

- Premnas Cuvier, 345; type CHÆTODON BIACULEATUS Bloch. Monotypic.
- Temnodon Cuvier, 346; type Cheilodipterus heptacanthus Lacepède.

Monotypic. Equivalent to Pomatomus Lacepède. The name Pomatomus was arbitrarily transferred to a different genus (Epigonus Raf.) by Cuvier.

Amphisile (Klein) Cuvier, 350; type Centriscus scutatus L. Equivalent to Centriscus L. and Amphisilen Klein.

XCII. OKEN, Isis, 1817.

L. OKEN.

On pages 1182-83 (misprinted 1782-83), Professor Oken gives Latin equivalents to all the French names in the first edition of the Règne Animal of Cuvier, as indicated above.

XCIII. CLOQUET, Dictionnaire des Sciences Naturelles de Levrault (Articles on Fishes), 1816 to 1830.

HIPPOLYTE CLOQUET.

(Latinizes several of Cuvier's names, as previously done by Oken.)

- Zingel Cloquet, 1817; "les cingles" Cuvier, called ZINGEL by Oken; type Perca zINGEL L.
- Eptatretus (Duméril) Cloquet, XV, 134, 1819; type Gastrobranchus dombey Lacepède.

Replaces HEPTATREMA Duméril and BDELLOSTOMA Müller.

XCIV. GEOFFROY ST. HILAIRE, Suite de l'Histoire des Poissons du Nil, Plates dated 1817, 1818.

ISIDORE GEOFFROY ST. HILAIRE.

Porcus Geoffroy St. Hilaire, 303, 1818; type SILURUS BAJAD Forskål.

Equivalent to Bagrus Cuv. & Val. but not to "les Bagres" Cuvier, 1817, Bagre Oken. Porcus should probably replace Bagrus, which is a latinization of Bagre, the vernacular Spanish name for the larger cat-fishes.

Heterobranchus Geoffroy St. Hilaire, 305, 1818; type HETEROBRANCHUS BIDORSALIS Geoffroy St. Hilaire.

XCV. LE SUEUR, Description of Several New Species of North American Fishes: Jour. Ac. Nat. Sci. Phila., 1818.

CHARLES A. LE SUEUR.

Somniosus Le Sueur, 222; type Somniosus brevipinna Le Sueur, Squalus microcephalus Bloch & Schneider.

Platirostra Le Sueur, 223; type Platirostra edentula Le Sueur. Same as Polyodon.

Hiodon Le Sueur, 366; type Hiodon tergisus Le Sueur. Often spelled Hyodon.

XCVI. RANZANI, Descrizione di un Pesce, un Nuovo Genere dei Tanioidei: Opusculo Sci. Bologna, II, 1818.

CAMILLO RANZANI.

Epidesmus Ranzani, 133; type Epidesmus Maculatus Ranzani. Synonym of Regalecus.

XCVII. BLAINVILLE, Poissons Fossiles: Nouveau Dictionnaire, XXVII, 1818.

HENRI MARIE DUCROTAY DE BLAINVILLE.

Not seen by us.

Anenchelum Blainville; type Anenchelum Glarisianum Blainville (fossil: Lepidopidæ).

- CIII. RAFINESQUE, Prodrome de 70 Nouveaux Genres et d'Animaux Découverts dans l'intérieur des États Unis d'Amérique durant l'Année 1818: Journal de Physique, de Chymie et d'Histoire Naturelle, Paris, June 1819.
- Aplodinotus Rafinesque, 419; type Aplodinotus grunniens Raf. Spelling corrected by Gill to Haploidonotus.
- Etheostoma Rafinesque, 419; type ETHEOSTOMA BLENNIOIDES Raf.

As determined by Agassiz. Later fixed on ETHEOSTOMA FLABELLARIS Rafinesque by Jordan & Evermann. Replaces DIFLESION Rafinesque and HYOSTOMA Agassiz.

Leucops Rafinesque, 419; type Pogostoma Leucops Raf. A myth of Audubon.

Aplocentrus Rafinesque, 420; type Aplocentrus calliops Raf. Mythical; after Audubon.

Calliurus Rafinesque, 420; type Calliurus punctulatus Raf. A synonym of Micropterus Lacepède.

Lepomis Rafinesque, 420; type, as stated by the author, LABRUS AURITUS L.

Pomotis Rafinesque, 420; type also stated to be LABRUS AURITUS L.

Apomotis Rafinesque, 420; type LEPOMIS CYANELLUS Raf.

Notemigonus Rafinesque, 421; type Notemigonus auratus Raf. (Cyprinus crysoleucas Mitchill).

Amphiodon Rafinesque, 421; Amphiodon alveoides Raf. (Misprint for Alosoides.)

Replaces Elattonistius Gill & Jordan.

Amblodon Rafinesque, 421; type Amblodon Bubalus Raf.

The "Buffalo-fish," to which the large blunt pharyngeal teeth of Aplodinotus were wrongly ascribed. A complex; the name Amblodon later restricted by Rafinesque to Aplodinotus grunniens, while the Buffalo-fish became type of Ictiobus Rafinesque.

Cycleptus Rafinesque, 421; type Cycleptus nigrescens (Catostomus elongatus Le Sueur).

Pilodictis Rafinesque, 422; type PILODICTIS LIMOSUS Raf. A myth.

CIV. RAFINESQUE, Annals of Nature, I, 1820.

Hemiplus Rafinesque, 6; type Hemiplus Lacustris Raf. (Cyprinus crysoleucas Mitchill).

Same as NOTEMIGONUS Rafinesque, 1819.

CV. RAFINESQUE, Ichthyologia Ohiensis, 1820.

It was the fortune of Professor Rafinesque to be one of the first to explore two of the richest fish faunas of the world, that of Sicily and that of the Ohio River. His various papers show his peculiar traits, intense activity, keen philosophical insight, and hopeless slovenliness in method.

Stizostedion Rafinesque, 23; type Perca salmonea Raf. (Perca vitrea Mitchill).

Lepibema Rafinesque, 23; type PERCA CHRYSOPS Raf.

Pomacampsis Rafinesque, 23; type Perca Nigropunctata Raf. Mythical, being one of Audubon's practical jokes.

Ichthelis Rafinesque, 27; type LABRUS AURITUS L.

A needless substitute for LEPOMIS, which is transferred (p. 30) to species of MICROPTERUS Lacepède.

Telipomis Rafinesque, 27; type Lepomis cyanellus Raf. A needless substitute for Apomotis.

Aplites Rafinesque, 30; type LEPOMIS PALLIDA Raf. A species of MICROPTERUS.

Nemocampsis Rafinesque, 30; type LEPOMIS FLEXUOLARIS Raf. A species of MICROPTERUS.

Dioplites Rafinesque, 32; type Lepomis Notata Raf. Also a synonym of Micropterus.

Ambloplites Rafinesque, 33; type Lepomis ichtheloides Raf. (Bodi-Anus rupestris Raf., 1817).

Aplesion Rafinesque, 36; type Etheostoma calliura Raf. The young of Micropterus.

Diplesion Rafinesque, 37; type ETHEOSTOMA BLENNIOIDES Raf. A synonym of ETHEOSTOMA Raf. See opinion 14, Comm. Zool. Nomenc.

Pomolobus Rafinesque, 38; type Pomolobus Chrysochloris Raf.

Dorosoma Rafinesque, 39; type Dorosoma HETERURA Raf. (MEGALOPS CEPEDIANA Le Sueur).

Clodalus Rafinesque, 43; type HIODON CLODALUS Le Sueur. Same as HIODON.

Minnilus Rafinesque, 45; type MINNILUS DINEMUS Raf.
This is apparently the same as Notropis Raf., 1818.

CVIII. GOLDFUSS, Handbuch Zoologie, II, 1820.*

GEORG AUGUST GOLDFUSS.

Batrachops Goldfuss; type LOPHIUS COMMERSONIANUS Lacepède. Substitute for CHIRONECTES, preoccupied. Equivalent to Antennarius.

CIX. LE SUEUR, Description of a new Genus and Several New Species of Fresh-Water Fish Indigenous to the United States:
Jour. Ac. Nat. Sci. Phila., II, 1821.

CHARLES A. LE SUEUR.

Mollinesia Le Sueur, 2; type Mollinesia latipinna Le Sueur.

CX. HAMILTON, An Account of the Fishes found in the River Ganges and its Branches: Edinburgh, 1822.†

Francis Hamilton [formerly Buchanan]. (Often quoted as Francis Hamilton-Buchanan.)

Callichrous Hamilton, 149; type SILURUS BIMACULATUS Bloch. Synonym of Ompok Lacepède.

Cynoglossus Hamilton, 365; type Cynoglossus Lingua Hamilton. Monotypic.

Bola Hamilton, 368; type Bola coltor Hamilton.

As restricted by Jordan.

Coius Hamilton, 369; type Coius cobojus Hamilton (Perca scandens Daldorf).

As here restricted by us.

The first species named, Colus vacti Hamilton, is Lates colonorum. The genus Colus is grossly unnatural and is best served by relegation to synonymy.

Hamilton observes: "The Cobojus by the natives is considered as the prototype of their genus 'Coi' from which the name Coius is derived."

Equivalent to ANABAS Cuvier.

Chanda Hamilton, 370; type CHANDA RUCONIUS Hamilton.

The first unquestioned species named. It is a species of Leiognathus Lacepède. The others named belong to Ambassis Cuvier.

^{* &}quot;ACANTHIOTUS Goldfuss" quoted by Agassiz (Nomenclator) is merely a misprint for ACANTHONOTUS.

[†] We are indebted to Mr. John Smallwood for the record of the genera of Hamilton.

Sisor Hamilton, 379; type SISOR RABDOPHORUS Hamilton. Monotypic.

Corica Hamilton, 383; type Corica coborna Hamilton.

Monotypic. Apparently an ally of CLUPEOIDES Bleeker. Not CORICUS Cuvier.

Chela Hamilton, 383; type CYPRINUS CACHIUS Hamilton.

The first species named; as restricted by Bleeker, 1862. Günther later restricts it to C. GORA Hamilton. Replaces CACHIA Günther.

Barilius Hamilton, 384; type by tautonomy CYPRINUS BARILA Hamilton. The first species named.

Bangana Hamilton, 385; type CYPRINUS DERO Hamilton.

The first species named: probably replaces Tylognathus Heckel and Lobo-Chellus van Hasselt.

Puntius Hamilton, 383; type CYPRINUS PUNTIO Hamilton.

By tautonomy. Restricted to CYPRINUS SOPHORE Hamilton by Bleeker.

Danio Hamilton, 390; type CYPRINUS DANGILA Hamilton.

The first species named; as restricted by Bleeker.

Morulius Hamilton, 391; type CYPRINUS MORALA Hamilton.

The first species named; restriction by Bleeker.

Cabdio Hamilton, 392; type Cyprinus Jaya Hamilton.

The first species named.

Garra Hamilton, 393; type Cyprinus Lamta Hamilton.

The first species named; as restricted by Bleeker. Replaces DISCOGNATHUS Heckel.

CXI (A). LEACH & DE LA BÈCHE, Trans. Zool. Soc. London, (2) 1822.

WILLIAM E. LEACH.

Dapedium Leach & De La Bèche, 45; type DAPEDIUM POLITUM Leach (fossil).

Written DAPEDIUS by Agassiz.

CXI (B). SCHINZ, Das Thierreich, II, 1822.

H. R. Schinz.

Macrodon Schinz, 482; type Lonchurus ancylodon Bloch & Schneider.

Replaces Ancylodon Cuvier, 1817, preoccupied by Ancylodon Illiger, 1811, a genus of mammals. Macrodon is prior to Sagenichthys Berg, 1895, also a substitute for Ancylodon. Not Macrodon Müller & Troschel, which is replaced by Hoplias Gill, 1903.

CXII. VAN HASSELT, (Poissons de Java): Allgemeine Konst. en Letterbok, II, 1823.

JAN COENRAD VAN HASSELT.

- Homaloptera Van Hasselt, 130; type Homaloptera Fasciata Van Hasselt.
- Crossocheilus Van Hasselt, 132; type Crossocheilus oblongus Van Hasselt.
- Hampala Van Hasselt, 132; type Hampala macrolepidota Van Hasselt.
- Lobocheilus Van Hasselt, 133; type Lobocheilus falcifer Van Hasselt.

A synonym of BANGANA.

- Nemacheilus Van Hasselt, 133; type Cobitis fasciatus Valenciennes.
- Acanthopsis Van Hasselt, 133; type Acanthopsis dialyzona Van Hasselt.
- Acanthophthalmus Van Hasselt, 133; type Acanthophthalmus fas-CIATUS Van Hasselt.
- Homaloptera Van Hasselt, 133; type Homaloptera fasciata Van Hasselt.
- Oxygaster Van Hasselt, 133; type Oxygaster anomalurus Van Hasselt.

CXIII. DESMAREST, Première Décade Ichthyologique, 1823.

Anselme Gaëtan Desmarest.

Diabasis Desmarest, 34; type DIABASIS PARRA Desmarest.

Not DIABASIS Hoffmansegg, a genus of beetles, 1819. Replaced by Hæmulon

Not Diabasis Horimansegg, a genus of beeties, 1819. Replaced by Hæmulon Cuvier.

- CXIV. NARDO, Osservazione Aggiunte all' Adriatica Ittiologia, 1824.

 GIAN DOMENICO NARDO.
- Squatinoraja Nardo; type SQUATINORAJA COLONNA (RHINOBATUS COLUMNÆ Müller & Henle).

 A synonym of RHINOBATUS.

CXV. MITCHILL, Description of an Extraordinary Fish: Ann. Lyc. Nat. Hist. N. Y., I, 1824.

SAMUEL LATHAM MITCHILL.

Saccopharynx Mitchill, 82; type Saccopharynx flagellum Mitchill.

CXVI. VALENCIENNES, Description du Cernié: Mém. du Museum, Paris, XI, 1824.

ACHILLE VALENCIENNES.

Polyprion Valenciennes, 265; type Polyprion Cernium Valenciennes.

CXVII. OTTO, Propterygia hyposticta, Nova Acta Acad., 1824.
B. C. Otto.

Propterygia Otto, III; type Propterygia Hyposticta Otto.

A deformed Raja, with the pectoral fins free from the head, similar to Cephaleutherus Rafinesque.

CXVIII. QUOY & GAIMARD, Voyage Autour du Monde . . . Exécuté sur les Corvettes l'Uranie et la Physicienne. Under Captain Louis de Freycinet, 1824.

JEAN RÉNÉ CONSTANTINE QUOY; JOSEPH PAUL GAIMARD.

This important work, which closely preceded the second edition of the Règne Animal, adopted a few unpublished names from Cuvier's manuscripts.

Anampses (Cuvier) Quoy & Gaimard, 276; type Anampses cuvier Q. & G.

Monotypic.

Gerres (Cuvier) Quoy & Gaimard, 293; type Gerres vaigiensis Q. & G., which is Sciena argyrea Forskål.

In this paper the genus Gerres is mentioned for the first time. But two species are named, G. VAIGIENSIS and G. GULA. The former belongs to the modern genus XYSTÆMA Jordan & Evermann, the latter to EUCINOSTOMUS Baird. When Gerres was later defined by Cuvier in the Règne Animal, SCIÆNA ARGYREA, which is identical with G. VAIGIENSIS, is included, and G. GULA is not mentioned. It would appear that G. VAIGIENSIS must be taken as type, thus replacing XYSTÆMA.

Jordan & Evermann have taken an American species, Gerres Lineatus (Humboldt) as type. This species is named by Cuvier, but not by Quoy & Gaimard. It cannot therefore serve as the type of Gerres. The genus called Gerres by Jordan & Evermann must apparently stand as Diapterus Ranzani. If Gerres is regarded as preoccupied by Gerris Fabricius, a genus of insects of earlier date, the substitute name of Catochenum Cantor, 1850, should be used.

Percophis Quoy & Gaimard, 351; type Percophis brasilianus Q. & G. Monotypic.

Priodon (Cuvier) Quoy & Gaimard, 377; type Priodon annulatus Q. & G.

A species of NASO Lacepède.

CXVIII (A). HARLAN, Saurocephalus: Journ. Ac. Nat. Sci. Phila., III (fossil fish), 1824.

RICHARD HARLAN.

Saurocephalus Harlan, 339; type Saurocephalus Lanciformis Harlan.

CXIX. KÖNIG, Icones Fossiles Sectione, 1825.

C. König.

Bucklandium König, 4; type Bucklandium diluvii König.
Monotypic.

Ampheristus König, pl. XV, fig. 190; type Ampheristus toliacus König.

Monotypic.

CXX. BOWDICH, Fishes of Madeira, 1825.

T. EDWARD BOWDICH.

Labeo Bowdich, 122; type LABEO SPAROIDES Bowdich. A sparoid fish; not LABEO Cuvier, 1817.

Anomalodon Bowdich, 237; type Anomalodon incisus Bowdich.

Apparently a synonym of Pomadasys Lacepède.

Diastodon Bowdich, 238; type Diastodon speciosus Bowdich (Labrus scrofa Cuv. & Val.).

This genus appears valid. It is near LEPIDAPLOIS Gill, but with much smaller scales.

Seleima Bowdich, 238; type SELEIMA AURATA Bowdich.

A synonym of KYPHOSUS Lacepède (K. INCISOR).

Amorphocephalus Bowdich, 238; type Amorphocephalus granulatus Bowdich.

A synonym of XYRICHTHYS Cuvier.

CXXI. RISSO, Histoire Naturelle des Principales Productions de l'Europe Méridionale, vol. III, Paris, 1826.

ANASTASE RISSO.

Lamia Risso, 123; type SQUALUS CORNUBICUS L. Monotypic. A synonym of LAMNA Cuvier, 1817.

Acanthias Risso, 131; type Squalus acanthias L. Equivalent to Squalus L. as restricted.

Scyphius Risso, 185; type Scyphius fasciatus Risso.

A synonym of Nerophis Rafinesque, 1810.

Onos Risso, 214; type Gadus mustela Bloch.

A synonym of GAIDROPSARUS Rafinesque.

Lotta Risso, 217; type Gadus elongatus Otto.

A variant of Lota Cuvier, 1817 ("Les Lottes"); apparently not eligible as a substitute for Molva Fleming.

Mora Risso, 224; type Mora mediterranea Risso.

Morua Risso, 225; type GADUS CAPELAN Lacepède.

According to Risso, a synonym of Trisopterus Rafinesque, 1814; prior to Brachygadus Gill (Gadus minutus L.). Monotypic.

Tripterygion Risso, 241; type Tripterygion NASUS Risso. Monotypic.

Diana Risso, 267; type Diana semilunata Risso. Monotypic.

Aphia Risso, 287; type Aphia Meridionalis Risso. Apparently a young Atherina. Monotypic.

Fiatola Risso, 289; type FIATOLA FASCIATA Risso. Monotypic. Apparently a young STROMATEUS. Ausonia Risso, 341; type Ausonia cuvieri Risso.

A synonym of Luvarus Rafinesque.

Aurata Risso, 355; type Aurata semilunata Risso.

A synonym of SPARUS L. as restricted by Fleming.

Macrostoma Risso, 447; type Macrostoma angustidens Risso.

Not Macrostomus Wied, a genus of insects; replaced by Notoscopelus Günther.

Alpismaris Risso, 458; type Alpismaris Risso Risso. The young of Synodus.

Paralepis Risso, 472; type Paralepis coregonoides Risso (Coregonus MACRÆNULA Risso, 1810).

CXXI (A). GERMAR, Keferstein's Deutschland's Geognosie Dargestellt, 1826.

E. F. GERMAR.

Ichthyolithus Germar, IV, 96; type Ichthyolithus esociformis 'Germar.

Perhaps identical with LEPTOLEPIS. ICHTHYOLITHUS, a term for fossil fishes used by early authors, is perhaps not intended as a scientific name.

CXXII. GEOFFROY ST. HILAIRE, Histoire Naturelle des Poissons de la Mer Rouge et de la Méditerranée, 1826.

ISIDORE GEOFFROY ST. HILAIRE.

Trygon Geoffroy St. Hilaire; type Trygon grabatus Geoffroy St. Hilaire.

This species is not noticed by recent writers. It is apparently a species of Tæniura Müller & Henle, 1842, allied to Tæniura Lymma (Forskål). This is generically distinct from the type of Trygon (Adanson) Cuvier, 1817. St. Hilaire makes no reference to Adanson, from whose manuscripts Cuvier took the name. It is plain that the date of the article which contains the name Trygon is subsequent to 1825, as a footnote relates to a paper read in October 1825, and printed in November. Hence we assume the date of the present paper as 1826. In any event Trygon St. Hilaire is preceded by Trygon Cuvier, and both are later than Dasyatis Rafinesque and Dasybatis Klein.

CXXIII. KAUP, Beiträge zur Amphibiologie und Ichthyologie: Isis, XIX, 1826.

JOHANN JACOB KAUP.

Not seen by us.

Rachycentron Kaup, 89; type RACHYCENTRON TYPUS.

Name amended in 1827 (Isis, p. 624) to RACHYCENTRUM. Replaces ELACATE Cuvier.

Narke Kaup (Ueber Narke, 65); type Raja capensis Gmelin. Replaces Astrape Gray.

CXXIV. NARDO, De Proctostego Novum Piscium: in Diario Chem. et Hist. Nat. Ticino, vol. I, 1827.

GIAN DOMENICO NARDO.

Proctostegus Nardo, I, 18, 42; type Proctostegus Proctostegus Nardo. A synonym of Diana Risso.

CXXV. NARDO, Prodromus Observationem et Disquisitionem, Adriatica Ichthyologia: Giorn, Fisica de Pavia, I, 1827.

Aphanius Nardo, 17, 23; type Aphanius nanus Nardo (Cyprinodon calaritanus Cuv. & Val.).

A valid genus replacing LEBIAS of authors (not of Cuvier) and MICROMUGIL. Gulia, 1861. Local name "Nani vel noni."

Acentrolophus Nardo, 11; type Acentrolophus Maculatus Nardo (Perca nigra Gmelin).

Substitute for CENTROLOPHUS Lacepède, regarded as inapplicable.

Leptosoma Nardo, 15, 22; type Leptosoma atrum Nardo.

Name preoccupied in Crustacea, Leach, 1819. "Stogio bastardo"; synonym probably of Monochirus.

Pastinacæ Nardo, 11; type Raja pastinaca L.

Lævirajæ Nardo, 11; type Raja miraletus L.

CXXVI. HARWOOD, On a Newly Discovered Genus of Serpentiform Fishes: Philos. Trans., 1827.

J. HARWOOD.

Ophiognathus Harwood, 49; type Ophiognathus ampullaceus Harwood.

A synonym of SACCOPHARYNX Mitchill.

CXXVII. CLOQUET, Nouveau Dictionnaire d'Histoire Naturelle: Nouvelle Edition, XXX, 1827.

HIPPOLYTE CLOQUET.

Sandat Cloquet, XXX, 126, 129; type Perca Lucioperca L.

Based on "Les Sandres" Cuvier. A synonym of Sander (Cuvier) Oken.

CXXVIII. RÜPPELL, Atlas zu der Reise in Nördlichen Afrika: Fische des Rothen Meeres, 1828.

EDUARD RÜPPELL.

Pharopteryx Rüppell, 15; type Pharopteryx nigricans Rüppell. A synonym of Plesiops Cuvier as later shown by Rüppell.

Lutodeira (Van Hasselt) Rüppell, 17; type Lutodeira indica (Mugil chanos L.).

A synonym of CHANOS. Monotypic.

Scoliostomus Rüppell, 17; same type.

A synonym of CHANOS.

Haliophis Rüppell, 49; type Muræna Guttata Forskål.

Monotypic.

Pastinachus Rüppell, 82; type Raja sephen Forskål.
Same as Hypolophus Müller & Henle. Not Pastinaca Nardo.

Asterropteryx Rüppell, 138; type Asterropteryx semipunctatus Rüppell.

CXXIX. FLEMING, History of British Animals, 1828.

JOHN FLEMING.

Selanonius Fleming, 169; type Selanonius walkeri Fleming = Squalus nasus (Bonnaterre).

A synonym of LAMNA Cuvier.

Encrasicholus Fleming, 183; type Clupea encrasicholus L. Synonym of Engraulis Cuvier, 1817. Monotypic.

Gobitis Fleming, 189; type Cobitis Tænia L. A perversion of Cobitis.

Morhua Fleming, 190; type Gadus Morrhua L. A synonym of Gadus L.

Molva Fleming, 197; type GADUS MOLVA L.

Cernua Fleming, 212; type Perca Cernua L.

Same as Cernua Schæfer or Acerina Güldenstadt.

Cataphractus Fleming, 216; type Cottus cataphractus L. A synonym of Agonus Bloch & Schneider.

Spinachia Fleming, 219; type Gasterosteus spinachia L.

CXXX. STARK, Elements of Natural History, Edinburgh, 2 vols., 1828.

JOHN STARK.

Latinization of several of Cuvier's names, some of them differing from the form chosen by Oken. These are the following:

Brosmus Stark, 1, 425; type Gadus brosme Müller. Same as Brosme Oken, 1817.

Sandrus Stark, 1, 452; type Perca Lucioperca L. Same as Sander Oken.

Stelliferus Stark, 1, 459; type Bodianus stellifer Bloch. Same as Stellifer Oken.

Cingla Stark, 1, 465; type Perca zingel L. Same as Zingel Oken.

Daurada Stark, 1, 465; type Sparus aurata L. A synonym of Sparus L.

CXXXI. LESSON, Description du Nouveau Genre Ichthyophis: Mém. Soc. Nat. Hist. Paris, IV, 397, 1828.

R. P. Lesson.

Ichthyophis Lesson, 397; type Ichthyophis pantherinus Lesson.
Name preoccupied; replaced by Uropterygius Rüppell.

CXXXII. CUVIER & VALENCIENNES, Histoire Naturelle des Poissons, vol. II, 1828.

GEORGES CUVIER and ACHILLE VALENCIENNES.

The first two volumes (the first one being anatomical and descriptive) of this great work preceded the second edition of the Règne Animal. The third and fourth volumes, also dated 1829, appeared in the last half of the year. The second edition of the Règne Animal, Vol. II, con-

taining the fishes, appeared in the first half of the year 1829, according to Mr. Fowler.

Labrax Cuvier & Valenciennes, II, 55; type Perca Labrax L. (Larbax Lupus C. & V.).

This is LABRAX of Klein, but not of Pallas, 1811.

Lates Cuvier & Valenciennes, 88; type Perca Nilotica L.

Lucioperca Cuvier & Valenciennes, II, 110; type Perca Lucioperca L. (Lucioperca sandra Cuv. & Val.).

A synonym of SANDER Oken.

Huro Cuvier & Valenciennes, 125; type Huro NIGRICANS (LABRUS SAL-MOIDES Lacepède).

The genus is identical with GRYSTES. Both are synonyms of MICROPTERUS Lacepède.

Etelis Cuvier & Valenciennes, II, 127; type Etelis carbunculus Cuv. & Val.

Monotypic.

Diploprion (Kuhl & Van Hasselt) Cuvier & Valenciennes, 137; type
DIPLOPRION BIFASCIATUM Kuhl & Van Hasselt.
Monotypic.

Pomatomus (Risso) Cuvier & Valenciennes, II, 171; type Pomatomus TELESCOPIUM Risso.

Not Pomatomus Lacepède. Stands as Epigonus Rafinesque.

Ambassis (Commerson) Cuvier & Valenciennes, II, 175; type Centropomus ambassis Lacepède (Ambassis commersoni Cuv. & Val.), Sciæna safgha Forskål.

Aspro Cuvier & Valenciennes, II, 188; type Perca asper L.

Equivalent to Asper Schæfer and Asperulus Klein. Not Aspro Commerson. Perca asper is probably generically distinct from Zingel (Cuvier) Oken. The genus may stand as Asper Schæfer or Asperulus Klein, both names of questionable eligibility.

Mesoprion Cuvier (Règne Animal, 143), Cuv. & Val., II, 441; type Lutianus Lutianus Bloch.

Name a substitute for LUTJANUS, regarded as barbarous.

CXXXIII. BORY DE SAINT VINCENT, Dictionnaire Classique d'Histoire Naturelle, XIII, 201, 1828.

JEAN BAPTISTE GEORGE MARIE BORY DE ST. VINCENT.

Sandat Bory de St. Vincent, XIII, 204, 1828; type Perca Lucioperca L. A synonym of Sander Oken.

CXXXIII (A). SEDGWICK & MURCHISON, Fossil Fishes: Trans. Geol. Soc. (2), III, 1828.

ADAM SEDGWICK and RODERIC IMPEY MURCHISON.

Dipterus Sedgwick & Murchison, 143; type DIPTERUS VALENCIENNESI Sedgwick & Murchison.

CXXXIV. CUVIER, Le Règne Animal, distribué d'Après son Organisation: Edition II, Vol. II (Fishes etc.), 1829.

GEORGES CUVIER.

A work of great importance, constituting with the first edition in 1817 the foundation of modern Ichthyology. The classification of fishes by Cuvier was for the first time solidly based on the true basis of Comparative Anatomy.

According to Henry Weed Fowler (Proc. Ac. Nat. Sci. Phila., 1907, 264) the first, second, fourth and fifth fascicles of the second volume (Fishes etc.) of the Second Edition of the Règne Animal appeared in January, February and March 1829. The third was delayed until about July. The third and fourth volumes of the Histoire Naturelle des Poissons appeared later in the same year, 1829. These facts do not affect nomenclature, so far as we observe. We are indebted to Mr. Fowler for the pagination of the Règne Animal, our two copies being reprints.

Acerina Cuvier, 144 (Cuv. & Val., III, 3); type Perca Cernua L. Identical with Cernua Schæfer, Acerina Güldenstadt, Percis Klein, and Gymnocephalus Bloch. The eligibility of these earlier names awaits decision.

Rypticus Cuvier, II, 144 (Cuv. & Val., III, 60); type Anthias saponaceus Bloch.

More correctly written RHYPTICUS.

Pentaceros Cuvier, 145 (Cuv. & Val., III, 30); type Pentaceros Capensis C. & V.

This name has been regarded as preoccupied by Pentaceros Schulte, 1760, a star-fish.* It has been replaced by Quinquarius Jordan. This change may not be necessary. According to Prof. Walter K. Fisher Pentaceros of Schulte is not properly a generic name but a quasi-vernacular.

Pentaceros Schröter, 1782, a name for the same animal is doubtfully tenable.

^{*}Dr. Fisher (Smithson. Misc. Coll., no. 1799, 1908) explains that Schulte ("Versteinerte Seesterne") following the pre-Linnæan work of Linck (De Stel-

Centropristes Cuvier, 145 (Cuv. & Val., III, 56); type Centropristes Nigricans Cuv. & Val. (Labrus striatus L.).

Later written CENTROPRISTIS.

Gristes Cuvier (Cuv. & Val., III, 54); type Labrus salmoides Lacepède.

A synonym of MICROPTERUS Lacepède. Later written GRYSTES.

Chironemus Cuvier (C. & V., 78), 146; type Chironemus Georgianus Cuv. & Val.

Monotypic.

Pomotis Cuvier, 147 (C. & V., III, 99); type "Pomotis vulgaris" (Perca gibbosa L.).

No reference is made to Rafinesque's genus Pomotis, proposed in 1819, with "LABRUS AURITUS L." as type. The description of Cuv. & Val. refers to the species called Perca gibbosa by Linnæus (Eupomotis gibbosus of Gill & Jordan). To this same species Rafinesque later transferred his generic name Pomotis. Stands as Eupomotis Gill & Jordan.

Centrarchus Cuvier 147 (C. & V., III, 84); type Cychla ænea Le Sueur.

A synonym of Ambloplites Rafinesque, 1820. Labrus irideus Lacepède, usually accepted as the type of Centrarchus, is noted by Cuvier as an uncertain species which the author had not seen. The genus typified by irideus Lacepède (= macropterus Lacepède) must stand as Eucentrarchus Gill, and its family as Micropteridæ, as Fowler has already indicated.

Dules Cuvier, 147 (C. & V., III, 111); type Dules Auriga Cuvier.

Fowler (1907) regards Dules as preoccupied by Dulus Vieillot, 1816, a genus of birds. He gives a new name, Eudulus, to Dules Auriga.

Datnia Cuvier, 147 (C. & V., III, 138); type Coius datnia Hamilton (Datnia argentea Cuv. & Val.).

Pelates Cuvier, 148 (C. & V., III, 145); type Pelates Quadrilineatus Cuv. & Val.

lis Marinis, 1793) divides the star-fishes into three "genera" ("Geschlechte"), to which he gives group names, the five-rayed forms being under the "genus" "quinquifidæ." Under these are several kinds or species ("Arten"), one of them, "Der fünfhörnichte, Pentaceros, hat fünf tiefe ausgeschweifte Seiten und lange kolbichte oder zugespitzte Strahlen. Die hierher gehörigen Arten sind entweder platt, Planæ, oder ab hockericht und bauchericht, Gibbæ."

Obviously this is not scientific nomenclature.

"Schröter in 1782 (Musei Gottwaldiani Testaceorum, Stellarum marinum etc., Nürnberg, 58) used Pentaceros, but he is not a consistent binomialist, and his 'generic' names are not tenable."

It is evident that Pentaceros has no standing in nomenclature prior to its use by Cuvier & Valenciennes, unless given it by Schröter in 1782, a matter which awaits decision.

Helotes Cuvier, 148 (C. & V., III, 149); type Therapon sexlineatus Quoy & Gaimard.

Monotypic.

Trichodon (Steller) Cuvier, about 150 (C. & V., III, 153); type
Trachinus trichodon Steller (Trichodon Stelleri Cuv. & Val.).

Monotypic.

- Myripristis Cuvier (about 150), (C. & V., III, 160); type Myripristis Jacobus Cuv. & Val.
- Beryx Cuvier (about 150), (C. & V., III, 222); type Beryx decadacty-Lus Cuv. & Val.
- Pinguipes Cuvier, 153 (C. & V., III, 277); type Pinguipes brasilianus Cuv. & Val.

Monotypic. A synonym of Mugiloides Lacepède.

Upeneus Cuvier (about 160), (C. & V., III, 446); type Mullus bifasciatus Lacepède.

As first restricted by Bleeker. Later Bleeker transferred the name UPENEUS to the first species named by Cuvier & Valenciennes, Mullus vittatus Forskål, already the type of his own genus UPENEOIDES. MULLUS BIFASCIATUS became then PARUPENEUS. This reversal seems to us unjustified. The name has been spelled Hypeneus. UPENEUS should stand.

- Hemitripterus Cuvier, 164; type Cottus tripterygius Bloch & Schneider.
- Hemilepidotus Cuvier, 165; type Cottus Hemilepidotus Tilesius.

 Monotypic.
- Sebastes Cuvier, 166; type Perca Norvegica Müller.
- Blepsias Cuvier, 167; type Blennius villosus Pallas. Monotypic.
- Apistes Cuvier, 167; type Apistes alatus Cuvier.
- Agriopus Cuvier ("Les Agriopes"), 168; type Blennius Torvus Walbaum.
- Pelor Cuvier, 168; type Scorpæna didactyla Pallas (Pelor obscurum Cuvier).

Monotypic. Name preoccupied for a genus of beetles, 1813. Replaced by INIMICUS Jordan & Starks (type Pelor Japonicum Cuv. & Val.). P. FILAMENTO-SUM Cuv. & Val. cannot be taken as the type of Pelor, as Cuvier names but one species, the others being then undescribed. This species, with two of the pectoral rays tipped with filaments, may belong to a different genus.

Oreosoma Cuvier (about 170); type (not named) Oreosoma atlanticum Cuvier. Corvina Cuvier, 173; type Sciæna nigra Gmelin; part of Sciæna umbra L.

The species SCIENA UMBRA L., the type of the genus SCIENA, was two-fold, a complex about evenly divided of the species called SCIENA NIGRA Gmelin and Cheilodipterus aquila Lacepède. The synonymy was disentangled by Cuvier (Mem. du Museum, 1815) and the name SCIENA UMBRA retained in place of S. Aquila. In accepting this decision we restore the generic name Corvina, for the "Corb," which becomes Corvina Nigra, while SCIENA replaces Argyrosomus de la Pylaie and Pseudosciena Bleeker for the "Maigre," which remains SCIENA UMBRA L., the type of SCIENA L.

Hæmulon Cuvier, 175; type Hæmulon elegans Cuvier (Sparus sciurus Shaw).

Lobotes Cuvier, 177; type Holocentrus surinamensis Bloch. Monotypic.

Scolopsides Cuvier, 178; type Scolopsides Kurita Cuvier. Called Scolopsis in Edition I.

Dascyllus Cuvier, 179; type CHÆTODON ARUANUS L. Monotypic.

Heliases Cuvier; type (not indicated) Heliastes insolatus Cuv. &

Identical with Chromis Cuvier, 1815, not Cromis Browne, 1789, nor Chromis Plumier.

Chrysophris Cuvier, 181; type Sparus aurata L. A synonym of Sparus L.

Pagellus Cuvier (about 182); type Sparus Erythrinus L.

Pentapus Cuvier ("Les Pentapodes") (about 182); type Sparus vittatus Bloch.

Lethrinus Cuvier (about 182); type Sparus Chærohynchus Bloch & Schneider.

Oblada Cuvier, 185; type Sparus melanurus L. Monotypic.

Mæna Cuvier; type Sparus Mæna L.

Taurichthys Cuvier, 192; type Taurichthys varius Cuvier.

A subgenus of Heniochus Cuvier.

Psettus (Commerson) Cuvier (about 193); type CHÆTODON RHOMBEUS
Bloch & Schneider.

Synonym of Monodactylus Lacepède.

Dipterodon Cuvier (about 195); type DIPTERODON CAPENSIS Cuvier.

Not DIPTERODON Lacepède, 1803. Monotypic. Replaced by DICHISTIUS Gill.

Pempheris Cuvier, 195; type Kurtus argenteus Bloch & Schneider (Pempheris touea Cuvier).

Auxis Cuvier, 199; type Scomber rochei Risso (Scomber thazard Lacepède).

Sarda Cuvier, 199; type Scomber sarda Bloch.

Later (1831) called Pelamys by Cuvier & Valenciennes. Monotypic. Not SARDA Plumier.

Cybium Cuvier, 199; type Scomber commersoni Lacepède.

A synonym of Scomberomorus Lacepède, 1803.

Thyrsites Cuvier (about 200); type Scomber atun Euphrasen.

Gempylus Cuvier, 200; type Gempylus serpens Cuvier.

This is identical with Lemnisoma of Lesson, but the date of Lemnisoma is 1830.

Elacate Cuvier, II, 203, as "LES ELACATES," the Latin name dating from C. & V., 1831; type ELACATE MOTTA C. & V. Synonym of RACHYCENTRON Kaud.

Olistus Cuvier, II, 209; type (not named) Olistus Malabaricus Cuv. & Val.

Scyris Cuvier, II, 209; type "LE GAL D'ALEXANDRIE," SCYRIS INDICA Cuv. & Val.

Not separable from ALECTIS Raf.

Blepharis Cuvier (about 210); type Zeus ciliaris Bloch.

Name preoccupied, replaced by Blepharichthys Gill. A synonym of Alectis.

Peprilus Cuvier, 213; type Peprilus crenulatus.

Probably the young of Peprilus alepidotus Cuvier. Monotypic. Same as Rhombus Lacepède, not of Klein.

Astrodermus (Bonelli) Cuvier (about 215); type Astrodermus guttatus Bonelli Ms. (Diana semilunata Risso).

Axinurus Cuvier, 225; type Axinurus thynnoides Cuvier. Monotypic.

Priodon Cuvier, 225; type Priodon annularis Cuvier.

Polyacanthus (Kuhl) Cuvier, 227; type Trichopodus colisa Hamilton.

Helostoma (Kuhl) Cuvier, 228; type Helostoma Temmincki Cuvier. Monotypic.

Spirobranchus Cuvier, 229; type Spirobranchus capensis Cuvier. Monotypic.

Myxodes Cuvier, 238; type (not named) Myxodes viridis Cuv. & Val.

Cirrhibarbus Cuvier ("LES CIRRHIBARBES") 238; type (not named)
CIRRHIBARBIS CAPENSIS Cuv. & Val.
Monotypic.

Zoarces Cuvier (about 240); type Blennius viviparus L. Equivalent to Enchelyopus Gronow, 1763.

Platyptera (Kuhl & van Hasselt) Cuvier, 248; type Platyptera MELANOCEPHALA K. & v. H.

Name preoccupied, replaced by RHYACICHTHYS Boulenger.

Chirus (Steller) Cuvier, about 250; type Labrax Lagocephalus Pallas. Substitute for Labrax Klein.

Antennarius (Commerson) Cuvier (about 251); type LOPHIUS COM-MERSONIANUS Lacepède.

Accepted as a substitute for CHIRONECTES Cuvier, 1817, preoccupied.

Malthe Cuvier, 252; type LOPHIUS VESPERTILIO L. Synonym of OGCOCEPHALUS Fischer. Monotypic.

Lachnolaimus Cuvier, 257; type Lachnolaimus suillus Cuvier. Suillus of Catesby. Monotypic.

Anampses Cuvier, 259; type Anampses cuvieri Quoy & Gaimard.

Clepticus Cuvier, 261; type CLEPTICUS GENIZARA Cuvier. Monotypic.

Malacanthus Cuvier, 264; type Coryphæna plumieri Bloch.

Calliodon Cuvier ("LES CALLIODON"), (about 265); type SCARUS SPINIDENS Q. & G.

Not identical with CALLYODON Gronow nor of Bloch & Schneider. Replaced by CRYPTOTOMUS Cope, 1871.

Odax Cuvier (about 265); type Scarus Pullus Forster.
Monotypic. Not Odax Commerson.

Mallotus Cuvier, II, 305; type Salmo grænlandicus Bloch (Clupea VILLOSA Gmelin).

Thymallus Cuvier, 306; type Salmo THYMALLUS L.

Regarded by some as preoccupied by Thymalus Latreille, 1802, a genus of beetles; replaced by Choregon Minding, 1832. But the scantily noted Thymalus of Linck, 1791, has priority over Thymalus, if acceptable. The root-words of Thymallus and Thymalus are not identical, Thymallus being a Latin name of the Grayling.

Coregonus Cuvier; type Salmo oxyrhynchus L.

Alosa Cuvier, 319; type Clupea alosa L.

Same as Alosa Linck.

Chatoëssus Cuvier, 320; type Megalops cepedianus Le Sueur.

As restricted by Cuv. & Val. Equivalent to Dorosoma Rafinesque.

Thryssa Cuvier; type Clupea setirostris Broussonet (Thrissa Cuv. & Val., 1817).

Not Thrissa Rafinesque, 1815. To be replaced by Thrissocles Jordan, a new generic name.

Motella Cuvier, 334; type Gadus mustela L.

Substitute for Mustela Cuvier, 1817, preoccupied in mammals. Identical with Gaidropsarus Rafinesque, 1810.

Monochir Cuvier, 336; type PLEURONECTES MICROCHIRUS De la Roche. Substitute for Monochirus, preoccupied. Not sufficiently different.

Osteoglossum (Vandelli) Cuvier (about 390); type Osteoglossum vandelli Cuvier.

Gymnarchus Cuvier (about 390); type Gymnarchus niloticus Cuvier.

Triodon Cuvier (about 390); type Triodon Bursarius Reinwardt.

Anacanthus (Ehrenberg) Cuvier (about 390); type (not named) RAJA UARNAK Forskål.

Monotypic. Replaces HIMANTURA Müller, 1837.

Heterotis Ehrenberg; type Sudis Niloticus Cuv. & Val.

Quoted from the Règne Animal by Günther, but we do not find it there. Apparently it appears first in Cuv. & Val., XIX, 465, 1846.

CXXXV. AGASSIZ (AND SPIX), Selecta Genera et Species Piscium quos in Itinere per Brasiliam, 1817, 1820, Collejit Dr. J. B. de Spix, 1829.

Louis Agassiz and Jean Baptiste Spix.

The date of this work is apparently a little later than that of the Second Edition of the Règne Animal.

Acanthicus Spix, 2; type Acanthicus hystrix Spix.

Rhinelepis Spix, 2; type Rhinelepis aspera Spix.

Cetopsis Agassiz, 8; type Cetopsis cæcutiens Agassiz.

Hypophthalmus Spix, 9; type Hypophthalmus edentulus Spix.

Phractocephalus Agassiz, 10; type Phractocephalus bicolor Agassiz.

Platystoma Agassiz, 10; type SILURUS LIMA Bloch & Schneider.

Name preoccupied by a genus of flies, Meigen, 1803.

Glanis Agassiz, 10; type not named.

Name given in dative case only "In Glanide Agass." Substitute for Bagre Cuvier, rejected because of barbarous origin. Afterwards (1856) GLANIS was revived as the generic name for the Greek cat-fish, GLANIS ARISTOTELIS Agassiz, which is perhaps a Parasilurus.

Ceratorhynchus Agassiz, 10; type Silurus Militaris Bloch & Schneider.

Not L. Name given in genitive only as "Ceratorhynchl." Genus close to Ageneiosus Lacepède but with the two short barbels replaced by erectile bony weapons.

Centrochir Agassiz, 14; type Doras crocodili Humboldt. Based on a species of Doras "non modo pinna pectorali uniradiata sed etiam appendice quadriradiata primæ caudalis maxime."

Sorubim Spix, 24; type SILURUS LIMA Bloch & Schneider. Replaces Platystoma.

Xiphorhynchus Agassiz, 18; type Salmo falcatus Bloch.

Salminus Agassiz, 18; type Hydrocyon brevidens Cuvier.

Osteoglossum (Vandelli) Agassiz, 46; type Osteoglossum vandelli Cuv. & Val.

Ischnosoma Spix, 47; type Ischnosoma bicirrhosum Spix. A deformed Osteoglossum.

Glossodus (Cuvier) Agassiz, 48; type Glossodus forskali Agassiz (Esox vulpes L.).

Same as ALBULA Gronow.

Anodus Spix, 57; type Anodus elongatus Spix.

Prochilodus Agassiz, 57; type Prochilodus Argenteus Spix.

Leporinus Spix, 58; type Leporinus novemfasciatus Spix.

Schizodon Agassiz, 58; type Schizodon Fasciatus Agassiz. Same as Anostomus Gronow.

Rhaphiodon Agassiz, 59; type Rhaphiodon vulpinus Agassiz.

Cynodon Spix, 59, 76; type Cynodon gibbus Spix.

As restricted by Eigenmann. Not Cynodonta Schuhmacher, 1817, a genus of mollusks.

Name changed to RHAPHIODON because earlier used in botany.

Xiphostoma Spix, 60, 78; type XIPHOSTOMA CUVIERI Spix.

Micropteryx Agassiz, 102; type (not named) SERIOLA DUMERILI Cuvier. Substitute for SERIOLA, preoccupied in botany. A synonym of SERIOLA Cuvier.

Corniger Agassiz, 119; type Corniger spinosus Agassiz.

Pachyurus Agassiz, 125; type Pachyurus squamipinnis Agassiz.

CXXXVI. CUVIER & VALENCIENNES, Histoire Naturelle des Poissons, IV, 1829.

GEORGES CUVIER and ACHILLE VALENCIENNES.

Hoplichthys Cuv. & Val., IV, XIX, 1829; type Hoplichthys Langs-DORFII Cuv. & Val.

Called Hoplichthys in table of contents, Oplichthys in the text.

Oplichthys Cuv. & Val., IV, 264, 1829; type Oplichthys Langsdorffii Cuv. & Val.

A variant in spelling.

- Bembras Cuv. & Val., IV, 282; type Bembras Japonicus Cuv. & Val.
- Minous Cuv. & Val., IV, 420, 1829; type Minous woora Cuv. & Val.

 Name changed to Corythobatus by Cantor, 1850, on account of Minois Hübner, 1816, a genus of butterflies.
- Hoplostethus Cuv. & Val., IV, 469; type Hoplostethus mediterraneus Cuv. & Val.
- CXXXVII. COCCO, Su Alcuni Nuovi Pesce del Mar di Messina: Archivio della R. Academia Peloritano, 1829.

Anastasio Cocco.

Argyropelecus Cocco, 146; type Argyropelecus Hemigymnus Cocco.

- CXXXVIII. COCCO, Su Alcuni Nuovi Pesci del Mar di Messina: Giorni Sci. Lett. Sicilia, XXVI, no. 77, 1829.
- Nyctophus Cocco, 44; type Nyctophus rafinesquei Cocco. Substitute for Myctophum.
- CXXXIX. COCCO, Sullo Schedophilus Medusophagus: Giorn, Cabin de Messina, I, 30 to 32; also quoted as Innom. Messina Ann., III, 1829, p. 57.
- Schedophilus Cocco, 30, 57; type Schedophilus Medusophagus Cocco. We have seen none of these papers of Cocco.

CXL. SERVILLE, Faune Française, 1820 to 1830.

"Livraison 24 par M. Serville" contains the fishes. This bears no date, but it was probably issued about 1829. It is not quoted by Cuvier, nor does it quote Cuvier. The date is not important, as no question of priority is concerned. This work is commonly ascribed to Blainville, who with Vieillot, Desmarest, Serville and others edited the series. In any event, the work is based on Blainville's *Prodrome*. All of Blainville's generic names ending in BATUS are here changed to BATIS.

AUDINET-SERVILLE.

- Dasybatis Serville, 12, 1829 ("RAIES EPINEUSES"); type RAJA BATIS L. Same as RAJA.
- Narcobatis (Blainville) Serville, 45 ("RAIES TORPILLES"); type RAIA TORPEDO L.

Same as Narcacion Klein, Torpedo Duméril, not of Forskål. Called Narcobatus by Blainville, 1816.

Pristibatis Serville, 49 ("RAIES SCIES"); type SQUALUS PRISTIS L. (PRISTIBATIS ANTIQUORUM Blainville).

CXLI. VALENCIENNES, Poissons Fossiles: Trans. Geol. Soc., III, 1829.

ACHILLE VALENCIENNES.

Osteolepis Valenciennes, 144; type Osteolepis Macrolepidotus Valenciennes.

CXLII. CUVIER & VALENCIENNES, Histoire Naturelle des Poissons, Vols. V (January) and VI (July) 1830.

Georges Cuvier and Achille Valenciennes.

Larimus Cuvier & Valenciennes, V, 146; type LARIMUS BREVICEPS Cuv. & Val.

Monotypic.

Nebris Cuvier & Valenciennes, V, 149; type Nebris Microps Cuv. & Val.

Not Nebria Latreille, 1802, a genus of beetles. Monotypic.

Lepipterus Cuvier & Valenciennes, V, 151; type Lepipterus francisci Cuv. & Val.

Monotypic.

Boridia Cuvier & Valenciennes, V, 154; type Boridia grossidens Cuv. & Val.

Monotypic.

Conodon Cuvier & Valenciennes, V, 156; type Conodon antillanus Cuv. & Val. (Perca nobilis L.).

Monotypic. Same as CHELONIGER Plumier.

Eleginus Cuvier & Valenciennes, 158; type Eleginus MacLovinus Cuv. & Val.

Monotypic. Not Eleginus Fischer, 1813. Replaced by Eleginops Gill.

Micropogon Cuvier & Valenciennes, V, 213; type MICROPOGON LINEATUS Cuv. & Val. (PERCA UNDULATA L.).

The original types of LINEATUS were from New York.

Latilus Cuvier & Valenciennes, V, 368; type Latilus argentatus Cuv. & Val. (Coryphæna Japonica Houttuyn).

A synonym of Branchiostegus Rafinesque, 1815.

Macquaria Cuvier & Valenciennes, V, 377; type Macquaria austra-LASICA Cuv. & Val.

Monotypic.

Etroplus Cuvier & Valenciennes, V, 486; type Etroplus meleagris Cuv. & Val. (CHÆTODON SURATENSIS Bloch).

As restricted by Bleeker.

Box Cuvier & Valenciennes, VI, 346; type Sparus Boops L. (Box vulgaris Cuv. & Val.).

A synonym of Boops Cuvier.

Scatharus Cuvier & Valenciennes, VI, 375; type Scatharus GRÆCUS Cuv. & Val.

Monotypic.

Crenidens Cuvier & Valenciennes, VI, 377; type Crenidens forskalii Cuv. & Val.

Monotypic.

Aphareus Cuvier & Valenciennes, VI, 485; type Labrus furcatus Lacepède.

Monotypic.

Aprion Cuvier & Valenciennes, VI, 544; type Aprion virescens Cuv. & Val.

Monotypic.

Apsilus Cuvier & Valenciennes, VI, 548; type Apsilus Fuscus Cuv. & Val.

Monotypic.

CXLIII. BENNETT, Catalogue of the Fishes of Sumatra: in Life and Public Services of Sir Stamford Raffles, 1830.

EDWARD TURNER BENNETT.

Monotaxis Bennett, 688; type Monotaxis indica Bennett (Sciæna grandoculis Forskål).

Replaces Sphærodon Rüppell.

CXLIV. BRONN, Ueber Zwei Fossile Fischarten: Neues Jahrbuch Mineralogie, 1830.

HEINRICH GEORG BRONN.

Tetragonolepis Bronn, 30; type Tetragonolepis semicinctus Bronn. Monotypic.

CXLV. HAYS, Saurodon: Trans. Amer. Philos. Soc., III, 1830.
I. HAYS.

Saurodon Hays, 475; type Saurodon Leanus Hays (fossil).

CXLVI. CUVIER & VALENCIENNES, Histoire Naturelle des Poissons, VII (January) and VIII (October), 1831.

GEORGES CUVIER and ACHILLE VALENCIENNES.

- Chelmon Cuvier & Valenciennes, VII, 86; type Chætodon rostratus L.
- Zanclus (Commerson) Cuv. & Val., VII, 92, 1831; type Chætodon CORNUTUS L.
- Drepane Cuvier & Valenciennes, VII, 132; type CHÆTODON PUNCTA-TUS L.
- Scatophagus Cuvier & Valenciennes, VII, 136; type Chætodon argus L.
- Psettus (Commerson) Cuvier & Valenciennes, VII, 240; type Psettus commersoni Cuv. & Val. (Monodactylus falciformis Lacepède).
- Pempheris Cuvier & Valenciennes, VII, 296; type Pempheris oualensis Cuv. & Val.

Toxotes Cuvier & Valenciennes, VII, 310; type Sclena Jaculatrix Pallas.

Monotypic.

Colisa Cuvier & Valenciennes, VII, 359; type Colisa vulgaris Cuv. & Val. (Trichopodus colisa Hamilton).

Same as TRICHOGASTER Bloch & Schneider as restricted by Cuv. & Val.

Spirobranchus Cuvier & Valenciennes, VII, 392; type Spirobranchus capensis Cuv. & Val.

Monotypic.

Bryttus Cuvier & Valenciennes, VII, 454, 461; type Bryttus Punctatus Cuv. & Val.

Same as Apomotis Rafinesque.

Nandus Cuvier & Valenciennes, VII, 481; type Nandus marmoratus Cuv. & Val. (Coius nandus Hamilton).

Rhynchichthys Cuvier & Valenciennes, VII, 504; type Rhynchichthys PELAMIDIS Cuv. & Val.

The young of Holocentrus.

Lichia Cuvier & Valenciennes, VIII, 340, 1831; type Scomber amia L.

Chorinemus Cuvier & Valenciennes, VIII, 367; type Scomberoides commersonianus Lacepède.

A synonym of Scomberoides Lacepède.

Aplodactylus Cuvier & Valenciennes, VIII, 476; type Aplodactylus punctatus Cuv. & Val.

Usually written HAPLODACTYLUS.

Aphritis Cuvier & Valenciennes, VIII, 483; type Aphritis urvilli Cuv & Val.

Monotypic.

Bovichtus Cuvier & Valenciennes, VIII, 487; type Callionymus diacanthus Carmichæl.

CXLVII. JARDINE, Acestra, 1831.

SIR WILLIAM JARDINE.

Acestra Jardine: type Syngnathus Æquoreus Rafinesque.

A synonym of Nerophis Rafinesque. We take this incomplete reference from Bonaparte, Catalogo Metodico, 1846, 91.

CXLVIII. GRAY, Description of Twelve New Genera of Fish found by General Hardwicke in India: Zool. Misc., 1831, 7-10.

JOHN EDWARD GRAY.

Centracion Gray, 5; type Centracion zebra Gray.

Equivalent to Heterodontus Blainville, regarded as preoccupied by Heterodon Latreille, a genus of serpents.

Temera Gray, 7, 152; type Temera Hardwickei Gray.

Monotypic. Also in Ill. Ind. Zool.

Botia Gray, 8; type Botia Almorhæ Gray.

Nandina Gray, 8; type CYPRINUS NANDINA Hamilton.

Chaca Gray, 8; type Platystacus chaca Hamilton.

Coilia Gray, 9; type Coilia Hamiltoni Gray.

Raconda Gray, 9; type Raconda Russelliana Gray.

Moringua Gray, 9; type Moringua Lateralis Gray. Also in Ill. Ind. Zool., 95.

CXLIX. GRAY, Illustrations of Indian Zoology, chiefly selected from the collection of General Hardwicke.

Two volumes of excellent plates, but without text; the plates not paged, but with manuscript numbers. Vol. I, 1830-1832, Vol. II, 1833-1834. The exact dates are uncertain. The first five of the following occur in CXLVIII; also, pp. 8, 9.

Ailia Gray, 85, 1831; type Ailia bengalensis Gray.

Acanthonotus Gray, 85, 1831; type Acanthonotus cuvieri Gray (Ailia bengalensis Gray).

Name preoccupied. Same as AILIA. Based on injured specimen.

Anacanthus Gray, 85, 1831; type Anacanthus barbatus Gray.

Name preoccupied by Anacanthus Ehrenberg, 1829. Replaced by PSILOCEPHALUS Swainson.

Diplopterus Gray, 87, 1831; type DIPLOPTERUS PULCHER Gray.

Not identified; said to have two anal fins. Name preoccupied in birds, Boie.

Rataboura Gray, 95, 1831; type Muræna rataboura Hamilton (Rataboura Hardwickei Gray).

Same as Moringua Gray, but with line priority.

Bedula Gray, 88, 1833; type Bedula Nebulosa Gray. A synonym of Nandus Cuv. & Val., 1831.

Pterapon Gray, II, 88, 1833; type Pterapon trivittatus Gray (Sciæna jarbua Forskål).

A synonym of THERAPON Cuvier.

Amora Gray, II, 90, 1833, corrected in manuscript to Anaora; type Amora tentaculata Gray.

Not identified. A platycephalus-like fish with tentacles over eye and spinules on sides. Perhaps a species of Thysanophrys Ogilby.

Apterygia Gray, II, 92, 1833; type Apterygia ramcarate Gray. Same as Raconda Gray.

Tor Gray, II, 96, 1833; type CYPRINUS TOR Hamilton (TOR HAMILTONI Gray).

Replaces LABEOBARBUS Bleeker.

Bengala Gray, 96, 1833; type Cyprinus elanga Hamilton. Replaces Megarasbora Günther, 1868.

Amanses Gray, II, 98, 1833; type Amanses hystrix Gray (Monacanthus scopas Cuvier).

Acarana Gray, II, 98, 1833; type Ostracion auritus Shaw. Also in Annals Nat. Hist., 1, 110, 1838.

Girella Gray, II, 98, 1833; type GIRELLA PUNCTATA Gray.

- CL. GRAY, Description of three new species of fish including two undescribed genera discovered by John Reeves in China: Zoological Miscellany, 1831.
- Leucosoma Gray, 4; type Leucosoma reevesi Gray (Albula Chinensis Osbeck).

Monotypic. A synonym of SALANX Cuvier and of ALBULA Osbeck.

Samaris Gray, 4; type Samaris cristatus Gray. Monotypic.

- CLI. GRAY, Description of a new genus of Percoid fish, discovered by Samuel Stutchbury in the Pacific Seas: Zoological Miscellany, 1831.
- Micropus Gray, 20; type Micropus Maculatus Gray.

 Name preoccupied by Micropus Wolf, 1810, a genus of birds. Replaced by Caracanthus Kröyer, 1844 (C. typicus).

CLI (A). LESSON, Voyage Autour du Monde sur la corvette La Coquille, under Captain L. I. Duperrey, 1830.

R. P. LESSON.

Lemnisoma Lesson, 160; type Lemnisoma thyrsitoides Lesson. A synonym of Gempylus Cuvier.

CLII. MINDING, Lehrbuch, Naturgeschichte der Fische, 1832.

Julius Minding.

Not seen by us.

Pompilus Minding, 108; type Gasterosteus ductor L. Same as Naucrates.

Choregon Minding, 119; type SALMO THYMALLUS L.

Substitute for Thymallus Cuvier, regarded as preoccupied by Thymalus Latreille, 1802, a genus of beetles. But the two names seen to be from different roots. Thymallus Linck, with a word or two of definition, is older than Thymalus Latreille.

CLIII. NILSSON, Prodromus Ichthyologiæ Scandinavicæ, 1832.

S. NILSSON.

Salvelini Nilsson, 7; type Salmo salvelinus L. (Salmo alpinus L.).

As group name. The normal form Salvelinus used by Richardson, Fauna Boreali Americana, III, 169, 1836.

CLIV. AGASSIZ, Fossile Fischreste: Neues Jahrbuch Mineralogie, 1832.

Louis (Jean Rodolphe) Agassiz.

Ptycholepis Agassiz, 142; type Ptycholepis Bollensis Agassiz.

Uræus Agassiz, 142; type Uræus furcatus Agassiz.

Name preoccupied by Wagler, 1830. Replaced by CATURUS Agassiz, 1834.

Sauropsis Agassiz, 142; type Sauropsis Latus Agassiz.

Pholidophorus Agassiz, 145; type Pholidophorus Macrocephalus Agassiz.

Semionotus Agassiz, 144; type Semionotus bergeri Agassiz.

Lepidotes Agassiz, 145; type Lepidotes gigas Agassiz (Cyprinus Elvensis Blainville).

Later written LEPIDOTUS.

Leptolepis Agassiz, 146; type Leptolepis bronni Agassiz.

Acanthoëssus Agassiz, 149; type Acanthoessus bronni Agassiz.

Later called Acanthodes.

CLV. VON MEYER, Palæologica, 1832.

H. von Meyer.

Lepidosaurus von Meyer, 208; type Lepidotus unguiculatus Agassiz. A synonym of Lepidotes.

CLVI. BONAPARTE, Iconografia della Fauna Italica: III, 1832-1841.

CARLO LUCIANO PRINCIPE BONAPARTE (otherwise Charles Lucien Bonaparte, Prince of Canino).

An elaborate and finely illustrated work, issued in fascicles, these being numbered but not paged. The number of the fascicle is noted below, with the approximate date of each.

Cerna Bonaparte, 18, 1832; type Perca Gigas Brünnich (Labrus Guaza L.).

A synonym of EPINEPHELUS Bloch as now restricted.

Microchirus Bonaparte, 28, 1832; type PLEURONECTES MICROCHIRUS De la Roche.

Monochirus Cuvier, not of Rafinesque.

Monochirus Bonaparte,* 28, 1832; type Solea Monochir Bonaparte. Same as Monochirus Rafinesque.

Squalius Bonaparte, 96, 1834; type Leuciscus squalus Bonaparte (Cyprinus cephalus L.).

Same as LEUCISCUS.

Telestes Bonaparte, 103, 1834; type Telestes Muticellus Bonaparte.

Ichthyococcus Bonaparte, 138, 1834; type Ichthyococcus ovatus Bonaparte.

Name later altered to Coccia by Günther because of its objectionable form.

^{*}For sake of completeness we add the remaining new genera of the later fascicles of the Fauna Italica.

CLI (A). LESSON, Voyage Autour du Monde sur la corvette.

Coquille, under Captain L. I. Duperrey, 1830.

R. P. LESSON.

Lemnisoma Lesson, 160; type Lemnisoma thyrsitoides Lesson. A synonym of Gempylus Cuvier.

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CLIII. NILSSON, Prodromus Ichthyologiæ Scandinavicæ, 1832.

S. Nilsson.

Salvelini Nilsson, 7; type Salmo salvelinus L. (Salmo alpinus L.) As group name. The normal form Salvelinus used by Richardson, Fas Boreali Americana, III, 169, 1836.

CLIV. AGASSIZ, Fossile Fischreste: Neues Jahrbuch Mineralog 1832.

LOUIS (JEAN RODOLPHE) AGASSIZ.

Ptycholepis Agassiz, 142; type Ptycholepis Bollensis Agassiz.

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Name preoccupied by Wagler, 1830. Replaced by CATURUS Agassiz, 1834.

Sauropsis Agassiz, 142; type Sauropsis Latus Agassiz.

Pholidophorus Agassiz, 145; type Pholidophorus Macrocephal Agassiz.

Semionotus Agassiz, 144; type Semionotus bergeri Agassiz.

- Lampugus Cuvier & Valenciennes, IX, 317; type Scomber Pelagicus L. Same as Coryphæna L.
- Aphredoderus (Le Sueur) Cuv. & Val., IX, 445; type Aphredoderus Gibbosus Le Sueur (Scolopsis sayanus Gilliams).

 Monotypic.
- CLVIII. LOWE, Description of a New Genus of Acanthopterygian Fishes: Proc. Zool. Soc. London, 1833.

RICHARD THOMAS LOWE.

- Alepisaurus Lowe, 104; type ALEPISAURUS FEROX Lowe. Monotypic. Equivalent to Plagyodus Steller, 1811.
- CLIX. LOWE, Characters of a New Genus and of Several New Species of Fishes from Madeira: Proc. Zool. Soc. London, I, 1833. (Also repeated in other papers.)
- Leirus Lowe, 142; type Leirus bennetti Lowe = Centrophorus ovalis Cuv. & Val., 1833 = Mupus imperialis Cocco, 1833.

 Same as Mupus Cocco of the same date. Leirus may be given precedence.
- CLX. COCCO, Lettere al Signor Risso su alcuni Pesci Novelli: Giorn. Sci. Lett. Sicilia, XLII, no. 124, 1833.

Anastasio Cocco.

- Tylosurus Cocco; type Tylosurus cantraini Cocco (Esox imperialis Rafinesque).
- CLXI. COCCO, Su Alcuni Pesci dei Mare di Messina: Giorn. Sei. Lett. Sicilia, XLII, 1833.
- Mupus Cocco, 20; type Mupus imperialis Cocco (Centrolophus ovalis Cuv. & Val.).

 Same as Leirus Lowe of the same date.

CLXII. COCCO, Osservationes Peloritani, XIII, April 1833.

Ruvettus Cocco, 1833, 18; type Ruvettus Pretiosus Cocco.

CLXIII. NARDO, De Skeponopodo novo piscium genere et de Guebucu Margravii; Species illi cognata: Mem. Assem. Nat. Vienna, Isis, 1833, fasc. 416.

GIAN DOMENICO NARDO.

Skeponopodus Nardo, 416; type Skeponopodus typus Nardo (XIPHIAS IMPERATOR Bloch & Schneider).

A synonym of Tetrapturus.

CLXIV. AGASSIZ, Poissons Fossiles, 1833.

Louis Agassiz.

Catopterus Agassiz, II, 3; type Catopterus analis Agassiz. A synonym of Dipterus.

Amblypterus Agassiz, II, 3, 28; type Amblypterus Latus Agassiz.

Notagogus Agassiz, 10; type Notagogus pentlandi Agassiz.

Microps Agassiz, II, 10; type MICROPS FURCATUS Agassiz.

Perhaps not distinct from Pholidophorus; name preoccupied in beetles, Meigen, 1823.

Pachycormus Agassiz, II, 11; type ELOPS MACROPTERUS Blainville.

Thrissops Agassiz, II, 12; type Thrissops formosus Agassiz.

Megalurus Agassiz, II, 13; type Megalurus Lepidotus Agassiz.

Aspidorhynchus Agassiz, II, 14; type Esox acutirostris Blainville.

Saurostomus Agassiz, II, 14; type Saurostomus Esocinus Agassiz. Near to Pachycormus; perhaps not distinguishable.

Gyrodus Agassiz, II, 16; type Gyrodus macrophthalmus Agassiz (Microdon abdominalis Agassiz).

Microdon Agassiz, II, 16; type MICRODON ELEGANS Agassiz. Name preoccupied by Meigen, 1803, a genus of DIPTERA.

Pycnodus Agassiz, II, 16; type Zeus platessus Blainville (Coryphæna Apoda Volta).

Cyclopoma Agassiz, IV, 17, 1833; type Cyclopoma gigas Agassiz.

Calamostoma Agassiz, II, 18; type Syngnathus Breviculus Blainville.

Monotypic.

Acanthodes Agassiz, II, 19; type Acanthoëssus bronni Agassiz. A needless substitute for Acanthoëssus.

Smerdis Agassiz, IV, 32, 1833; type Perca minuta Blainville.

RECAPITULATION.

SUGGESTED CHANGES IN GENERIC NOMENCLATURE OF FISHES.

A. Changes resting in Priority.

The following changes from current Nomenclature, apparently justified by the law of priority and the accepted rules, result from the present survey.

Acanthoëssus Agassiz: in place of Acanthodes Agassiz (fossil).

Alabes Cuvier: CHEILOBRANCHUS Richardson.

Alosa Linck: Alosa Cuvier.

Anacanthus Ehrenberg: HIMANTURA Müller.

Anchoviella Fowler: Stolephorus Bleeker (not Lacepède).

Apteronotus Lacepède: Sternarchus Bloch & Schneider.

Bagre Cuvier: Felichthys Swainson, Ailurichthys Baird.

Barbatula Linck: Oreias Sauvage, Orthrias Jordan & Fowler.

Bengala Gray (1833): MEGARASBORA Günther, 1868.

Bodianus Bloch: HARPE Lacepède.

Branchiostegus Rafinesque: LATILUS Cuv. & Val.

Caranx Lacepède: CARANGUS Griffith.

Catonotus Agassiz: ETHESTOMA Jordan, not Raf.

Cephalopholis Bloch & Schneider: Bodianus Cuv. & Val. (not Bloch).

ENNEACENTRUS Gill.

Chelon Röse: Chænomugil Gill. Citharus Röse: Eucitharus Gill.

Clupanodon Lacepède: Konosirus Jordan & Snyder.

Conger Houttuyn: Conger Cuvier.

Corvina Cuvier: Sclena Jordan & Evermann (not of Cuvier), Cora-

CINUS Pallas.

Curimata Walbaum: Curimatus Cuvier.

Diapterus Ranzani: Gerres Jordan & Evermann (not of Quoy &

Gaimard).

Echeneis L.: LEPTECHENEIS Gill.
Echelus Rafinesque: Myrus Cuvier.

Etheostoma Rafinesque: DIPLESION Raf.

Eucentrarchus Gill: Centrarchus Jordan & Evermann (not of Cuv. & Val.).

Gaidropsarus Rafinesque: Motella Cuvier.
Gerres Cuvier: XYSTÆMA Jordan & Evermann.
Gnathanodon Bleeker: (CARANX SPECIOSUS).

Hemiulis Swainson (as restricted by Bonaparte, 1839): HALICHŒRES

Rüppell, CHŒROJULIS Gill.

Histrio Fischer: PTERYPHRYNE Gill, PTEROPHRYNOIDES Gill.

Hoplias Gill: Macrodon Müller & Troschel.

Hypacanthus Rafinesque: CAMPTOGRAMMA Regan. Inimicus Jordan & Starks: Pelor Cuv. & Val.

Leucichthys Dybowski: ARGYROSOMUS Agassiz.

Lycodontis McClelland: Gymnothorax Günther (not of Bloch).

Macrodon Schinz: Ancylodon Cuvier, Sagenichthys Berg.

Macrognathus Lacepède: Rhynchobdella Bloch & Schneider.

Macrorhynchus Lacepède: Dicrorus Günther.

Membras Bonaparte: Kirtlandia Jordan & Evermann.

Merolepis Rafinesque: (SMARIS ZEBRA).
Micrometrus Gibbons: ABEONA Girard.

Mola Kœlreuter: Mola Cuvier.

Mugiloides Lacepède: Pinguipes Cuvier.

Narke Kaup: ASTRAPE Gray.

Naso Lacepède: Monoceros Bloch & Schneider. Ompok Lacepède: CALLICHROUS Hamilton.

Ovoides Cuvier: Ovoides Lacepède.

Pastinachus Rüppell: Hypolophus Müller & Henle.

Pentanemus Günther: Polynemus Gill (not of L. as restricted).

Peprilus Cuvier: RHOMBUS Lacepède.
Phycis Röse: PHYCIS Bloch & Schneider.
Plagyodus Steller: ALEPISAURUS Lowe.

Pœcilichthys Agassiz: Etheostoma Jordan & Evermann (not of Raf-

inesque as restricted).

Polynemus L.: Polydactylus Lacepède.
Porcus St. Hilaire: Bagrus Cuv. & Val.
Quinquarius Jordan: Pentaceros Cuvier.

Remora Forster: Remora Gill. Sardina Antipa (S. PILCHARDUS).

Sardinella Val., Amblygaster Bleeker, Sardinia Poey.

Sciæna L.: Argyrosomus De la Pylaie, Pseudosciæna Bleeker.

Scylliorhinus Blainville: CATULUS Smith.

Sphyræna Röse: Sphyræna Bloch & Schneider.

Spicara Rafinesque: SMARIS Cuv.

Stolephorus Lacepède: Spratelloides Bleeker.

Syngnathus L.: SIPHOSTOMA Raf.
Thrissocles Jordan*: THRYSSA Cuvier.
Thymallus Linck: THYMALLUS Cuvier.
Tor Gray (1833): LABEOBARBUS Bleeker.
Torpedo Houttuyn: Torpedo Duméril.

Trisopterus Rafinesque: Morua Risso, Brachygadus Gill.

Typhlinus Rafinesque: Typhle Rafinesque, Siphonostomus Kaup. Xystramia † Jordan: Glossamia Goode & Bean (not of Gill). Zoramia ‡ Jordan: Mionorus Jordan & Seale (not of Krefft).

B. Changes resulting from the operations of Opinions 20, 37.

Taking the precedent of Opinion 20, which admits as eligible the generic names of Gronow, and that of 37, admitting those of Brisson, the following changes seem necessary, the status of Klein being almost identical with that of Gronow.

Amia Gronow: instead of Apogon Lacepède.

Amiatus Rafinesque: Amia L.
Brama Klein: Abramis Cuvier.
Callyodon Gronow: Scarus Forskål.
Cestracion Klein: Sphyrna Rafinesque.
Coracinus Gronow: Dipterodon Cuvier.
Cyclogaster Gronow: Liparis Scopoli.
Dasybatus Klein: Dasyatis Rafinesque.
Enchelyopus Gronow: Zoarces Cuvier.

Glaucus Klein: Hypodis Rafinesque, Cæsiomorus Lacepède.

Hepatus Gronow: TEUTHIS L., ACANTHURUS Forskål.

Labrax Klein: DICENTRARCHUS Gill.

Lepodus Rafinesque: Brama Bloch & Schneider.

Leuciscus Klein: Leuciscus Cuvier.

Mænas Klein: Mæna Cuvier.

Mystus Gronow: Hypselobagrus Günther. Narcacion Klein: Narcobatus Blainville.

^{*} Type Clupea setirostris Broussonet.

[†] Type Glossamia pandionis Goode & Bean: See Copea, 1917, p. 46.

[†] Type Apogon græffei Günther: See Copea, 1917, p. 46.

Pristis Klein: Pristis Linck.

Prochilus Klein: Pholis Cuv. & Val. (preoccupied).

Pseudopterus Klein: Pterois Cuvier.
Rhina Klein: Squatina Duméril.
Rhinobatus Klein: Rhinobatus Linck.
Rhombus Klein: Bothus Rafinesque.

Sargus Klein: DIPLODUS Rafinesque, SARGUS Cuvier.

(new name) CICHLA Bloch & Schneider. (new name) SOLENOSTOMUS Lacepède.

C. Changes resulting from the operations of Opinion 24, which legalizes the names of Commerson in Lacepède. Those of Plumier in Lacepède are precisely similar.

Alticus Commerson: in place of Rupiscartes Swainson.

Cheloniger Plumier: Conodon Cuvier.

Chromis Plumier: Umbrina Cuvier. Unless Cromis Browne is accepted.

Encrasicholus Commerson: Anchoviella Fowler.

Pagrus Plumier: NEOMÆNIS Girard.
Sarda Plumier: Ocyurus Gill.
(new name) PAGRUS Cuvier.

(new name) SARDA Cuvier. (new name) ODAX Cuvier.

D. Hypothetical changes in Nomenclature according to the law of priority but doubtfully eligible, being revised reprints or translations of pre-Linnæan authors; apparently to be rejected under Opinion 57.

Albula Osbeck: SALANX Cuvier.

Apocryptes Osbeck: A valid genus, near Boleophthalmus Bloch & Schneider.

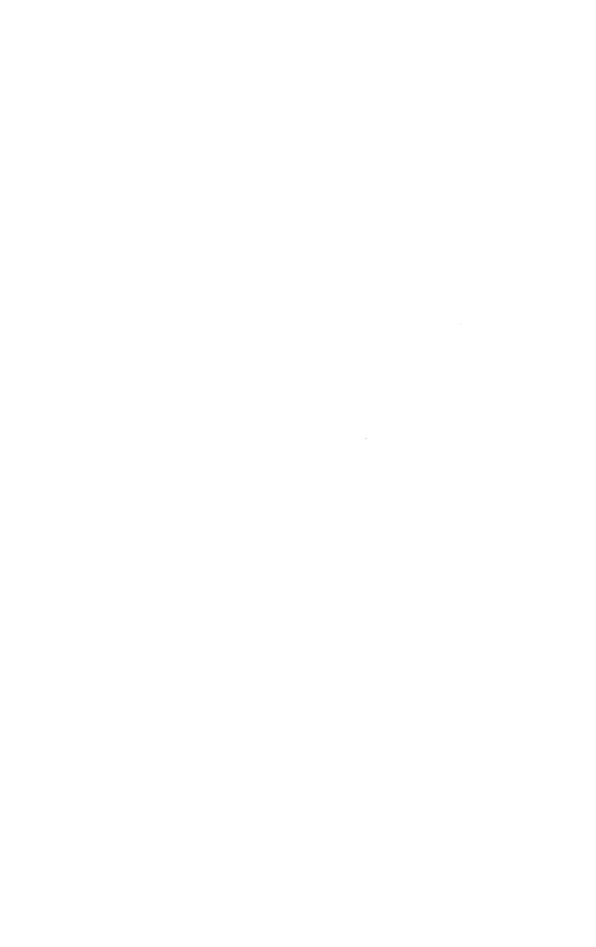
Butyrinus Lacepède: Albula Gronow. Cromis Browne: Pogonias Lacepède. Heliases Cuvier: Chromis Cuvier. Helops Browne: Bodianus Bloch.

Menidia Browne: Anchoviella Fowler, Encrasicholus Commerson.

Pelmatia Browne: Gobiomorus Lacepède, Philypnus Cuvier.

Plagusia Browne: Symphurus Rafinesque.

Rhomboida Browne: Vomer Cuvier. Saurus Browne: Oligoplites Gill.



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In the following list, the names of genera apparently valid are left unmarked; d indicates doubt of one form or another; s indicates synonyms, apparently never to be revived or added to the system.

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